STATE OF CALIFORNIA
REGIONAL WATER QUALITY CONTROL BOARD
LOS ANGELES REGION

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ORDER NO. R4-2014-0024
NPDES PERMIT NO. CAS004003

WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM DISCHARGES FROM THE CITY OF LONG BEACH

The City of Long Beach is subject to waste discharge requirements for its municipal separate storm sewer system (MS4) discharges originating within its jurisdictional boundaries composed of storm water and non-storm water as set forth in this Order:

I. FACILITY INFORMATION

Table 1. Discharge Information

Discharger	City of Long Beach
Facility Name	Municipal Separate Storm Sewer System owned and operated by the City of Long Beach
The U.S. Environmental Protection Agency (US EPA) and the California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) have classified the City of Long Beach MS4 as part of the Greater Los Angeles County MS4 and as a large MS4 pursuant to 40 CFR section 122.26(b)(4) and a major facility pursuant to 40 CFR Section 122.2.	

Table 2. Facility Information

Permittee (WDID)		**Contact Information**
City of Long Beach (4B190105032)	Mailing Address	333 West Ocean Blvd. 9th Floor Long Beach, CA 90802
	Facility Contact	Storm Water/ Environmental Compliance Officer

Table 3. MS4 Discharge Locations[1]

Major Outfall Locations	Outfall Size	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
Alamitos Bay / Basin No. 3	39" Discharge	33.753	-118.109	Alamitos Bay
Alamitos Bay /Basin No. 3	36" Discharge	33.756	-118.112	Alamitos Bay
36th Pl/Ocean Blvd	54" Discharge	33.76	-118.151	Beach
39th Pl / Allin St	39" Discharge	33.759	-118.148	Beach
9th Pl / Ocean Blvd	36" Discharge	33.764	-118.174	Beach

[1] Table 3 identifies the major outfall locations based on the best available information at the time of permit adoption and may not be an complete inventory of all the major outfalls.

Ocean Blvd/Molino Ave	51" Discharge	33.762	-118.162	Beach
1231 Pier B 1400 8Th St	54" Discharge	33.777	-118.21	Channel #2 POLB
1722 8Th St	54" Discharge	33.774	-118.216	Channel #2 POLB
850 Edison Avenue	42" Discharge	33.773	-118.219	Channel #2 POLB
6th St/Alley E/O Park Ave	63" Discharge	33.773	-118.136	Colorado Lagoon
6th St/Nieto Ave	54" Discharge	33.773	-118.133	Colorado Lagoon
Monrovia Ave/4th St	48" Discharge	33.772	-118.132	Colorado Lagoon
7380 Willow St	60" Discharge	33.803	-118.085	Coyote Creek
8194 Timor St	48" Discharge	33.819	-118.068	Coyote Creek
Coyote Creek / Fenley Dr	Unk (OC Rossmoor Pump Station Discharge)	33.815	-118.071	Coyote Creek
Coyote Creek / N/O Junction San Gabriel River	Unk (OC Rossmoor Pump Station Discharge)	33.796	-118.089	Coyote Creek
Coyote Creek / S/O 226th St	3-36" Discharge (Claretta Drain Pump Station)	33.823	-118.066	Coyote Creek
710 Fwy / 27TH St	36" Discharge	33.806	-118.206	Los Angeles River
710 Fwy / Cowles St	3-36" & 1-8" Discharge	33.784	-118.206	Los Angeles River
710 Fwy / Hughes Way	24" Discharge	33.829	-118.205	Los Angeles River
710 Fwy / Long Beach Blvd	3-36" Discharge	33.863	-118.197	Los Angeles River
710 Fwy / Taper St	36" Discharge	33.819	-118.206	Los Angeles River
Los Angeles River / 17th St	204" Discharge	33.788	-118.204	Los Angeles River
Los Angeles River / 34th St	78" Discharge	33.819	-118.205	Los Angeles River
Los Angeles River / 3rd St	96" Discharge	33.771	-118.205	Los Angeles River
Los Angeles River / 405 Fwy	72" Discharge	33.825	-118.205	Los Angeles River
Los Angeles River / 7th St	30" & 21" Discharge	33.775	-118.204	Los Angeles River
Los Angeles River / Artesia Blvd	3-48" & 3-36" & 1-8" Discharge	33.874	-118.189	Los Angeles River
Los Angeles River / Loma Vista Dr	4-78" Discharge	33.779	-118.205	Los Angeles River
Los Angeles River / Loma Vista Dr	2-42" & 1-10" Discharge	33.779	-118.204	Los Angeles River
Los Angeles River / S/O Ocean Blvd	4-36" Discharge	33.765	-118.204	Los Angeles River
Los Angeles River / S/O Ocean Blvd	12" Discharge	33.766	-118.206	Los Angeles River
Los Angeles River / Virginia Vista	2-54" Discharge	33.832	-118.204	Los Angeles River
Los Angeles River/ 25th St	54" Discharge	33.802	-118.205	Los Angeles River
Los Angeles River/ 405 Fwy	60" Discharge	33.827	-118.206	Los Angeles River
Los Angeles River/ Wardlow Rd	54" Discharge	33.82	-118.205	Los Angeles River
Los Angeles River/ Willow St	48" Discharge	33.805	-118.205	Los Angeles River
Los Angeles River/Hill St	42" Discharge	33.797	-118.204	Los Angeles River

Los Angeles River/S/O 47th St	9-10" Discharge	33.84	-118.203	Los Angeles River
Market St / Los Angeles River	180 " Discharge	33.854	-118.2	Los Angeles River
1800 Knoxville Ave	3-30" Discharge	33.789	-118.104	Los Cerritos Channel
1809 Vuelta Grande Ave	42" Discharge	33.789	-118.103	Los Cerritos Channel
2040 Knoxville Ave	48" Discharge	33.793	-118.104	Los Cerritos Channel
2201 Vuelta Grande Ave	48" Discharge	33.796	-118.103	Los Cerritos Channel
2372 Knoxville Ave	38" Discharge	33.8	-118.105	Los Cerritos Channel
4600 Spring St	30" Discharge	33.813	-118.14	Los Cerritos Channel
5517 China Pt	36" Discharge	33.767	-118.125	Los Cerritos Channel
5950 Waterfront Pl	39" Discharge	33.766	-118.122	Los Cerritos Channel
6138 Corsica Circle	42" Discharge	33.765	-118.12	Los Cerritos Channel
6220 Willow St	48" Discharge	33.803	-118.109	Los Cerritos Channel
6264 Pacific Coast Highway	42" Discharge	33.763	-118.115	Los Cerritos Channel
6400 Willow St	42" Discharge	33.802	-118.108	Los Cerritos Channel
6491 Bixby Hill Rd	42" Discharge	33.778	-118.104	Los Cerritos Channel
Clark Ave / Spring St	480" Discharge	33.81	-118.133	Los Cerritos Channel
Lakewood Blvd / Spring St	108" Discharge	33.813	-118.141	Los Cerritos Channel
Lakewood Blvd / Spring St	120" Discharge	33.812	-118.142	Los Cerritos Channel
Lakewood Blvd / Spring St	39" Discharge	33.813	-118.139	Los Cerritos Channel
Los Cerritos Channel / 7th St	39" Discharge	33.775	-118.104	Los Cerritos Channel
Los Cerritos Channel / Costa del Sol	64" Discharge	33.763	-118.116	Los Cerritos Channel
Los Cerritos Channel FC/Loynes Dr	60" Discharge	33.768	-118.105	Los Cerritos Channel
Los Cerritos Channel/ 7th St	48" Discharge	33.775	-118.103	Los Cerritos Channel
Spinnaker Bay Dr/Eliot St	60" Discharge	33.768	-118.125	Los Cerritos Channel
Spring St / San Anseline Ave	66" Discharge	33.81	-118.121	Los Cerritos Channel
Studebaker Rd / 9th St	36" Discharge	33.78	-118.103	Los Cerritos Channel
Studebaker Rd / Anaheim Rd	81" Discharge	33.781	-118.103	Los Cerritos Channel
Paoli Way / Marina Park Ln	72" Discharge	33.768	-118.13	Marine Stadium
Paoli Way/ Marina Park Ln	108" Discharge	33.768	-118.13	Marine Stadium
6930 Septimo St	48" Discharge	33.775	-118.098	San Gabriel River
Across 3678 Stevely Ave	96" Discharge	33.825	-118.092	San Gabriel River
Across 3694 Stevely Ave	96" Discharge	33.825	-118.092	San Gabriel River
San Gabriel River/Carson St	48" Discharge	33.831	-118.093	San Gabriel River
San Gabriel River/Spring St	7-42" Discharge	33.81	-118.091	San Gabriel River

Table 4. Administrative Information

This Order was adopted by the California Regional Water Quality Control Board, Los Angeles Region on:	February 6, 2014
This Order becomes effective on:	March 28, 2014
This Order expires on:	March 28, 2019
According to Title 23, Division 3, Chapter 9 of the California Code of Regulations and to Title 40, Part 122 of the Code of Federal Regulation, the City of Long Beach shall file a Report of Waste Discharge as application for new waste discharge requirements no later than:	180 days prior to the expiration date of this Order: September 29, 2018
According to Section 2235.4 of Title 23 of the California Code of Regulations, the terms and conditions of an expired permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on continuation of the expired permit are complied with. Accordingly, if a new Order is not adopted by the expiration date above, then the City of Long Beach shall continue to implement the requirements of this Order until a new one is adopted.	

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all its attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on February 6, 2014.

Samuel Unger

Samuel Unger, Executive Officer

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II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Water Board) finds:

A. Nature of MS4 Discharges and Sources of Pollutants

The City of Long Beach owns and/or operates a large municipal separate storm sewer system (MS4) that conveys and ultimately discharges storm and non-storm water into surface waters under the jurisdiction of the Los Angeles Regional Board. These discharges originate as surface runoff from the various land uses within the City of Long Beach's political boundary; untreated, these discharges contain pollutants with the potential to impair or contribute to the impairment of the beneficial uses in surface waters. Since 1999, the City of Long Beach's monitoring data and analyses in support of TMDL development have identified pollutants of concern in discharges from the MS4. These pollutants of concern vary by receiving water. They generally include but are not limited to copper, lead, zinc, cadmium, PCBs, PAHs, pyrethroid pesticides, organophosphate pesticides, fecal indicator bacteria, and trash.

Impaired water quality has myriad impacts to beneficial uses of surface waters: beach postings and closures, fish consumption advisories, localized and global ecosystem and aesthetic impacts from trash and debris, and reduced habitat for wildlife such as threatened and endangered species, among others. Federal law requires states to address impaired water bodies by developing total maximum daily loads (TMDLs). The Regional Water Board and USEPA have established 9 TMDLs that identify MS4 discharges from the City of Long Beach as one of the pollutant sources causing or contributing to these water quality impairments.

B. Regulatory History and Municipal Separate Storm Sewer System Requirements

The 1972 Clean Water Act[2] established the NPDES Program to regulate the discharge of pollutants from point sources to waters of the United States. However, pollution from storm water and dry-weather urban runoff was largely unabated for over a decade. In response to the 1987 Amendments to the Clean Water Act, US EPA developed Phase I of the NPDES Storm Water Permitting Program in 1990, which established a framework for regulating municipal and industrial discharges of storm water and non-storm water. The Phase I program addressed sources of storm water and dry-weather urban runoff that had the greatest potential to negatively impact water quality. In particular, under Phase I, US EPA required NPDES Permit coverage for discharges from medium and large MS4 with populations of 100,000 or more.[3] Operators of MS4s regulated under the Phase I NPDES Storm Water Program were required to obtain permit coverage for municipal discharges of storm water and non-storm water to waters of the United States.

Early in the history of the MS4 program in the Los Angeles Region, the Regional Water Board designated the MS4s owned and/or operated by the incorporated cities, including the City of Long Beach, and Los Angeles County unincorporated areas within the Coastal Watersheds of Los Angeles County as a large MS4 due to the total population

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[2] Federal Water Pollution Control Act; 33 U.S.C. § 1251 et seq., which, as amended in 1977, is commonly known as the Clean Water Act.

[3] Large MS4s are those that serve a population of at least 250,000 and medium MS4s are those that serve a population between 100,000 and 250,000.

of Los Angeles County, including that of unincorporated and incorporated areas, and the interrelationship between the Permittees' MS4s, pursuant to 40 CFR section 122.26(b)(4). In 1990, the City of Long Beach's population alone was 429,433.

The Regional Water Board regulated discharges from the City of Long Beach's MS4 from 1990 through 1999 under the Los Angeles countywide waste discharge requirements (WDR) contained in Order No. 90-079 and in Order No. 96-054 adopted on June 18, 1990, and on July 15, 1996, respectively. In addition to being WDRs, these orders were NPDES permits for the discharges from the MS4 serving the entire Los Angeles County area including those within the City of Long Beach.

In 1999, the Los Angeles Regional Board decided to issue a separate MS4 Permit, Order No. 99-60 to the City of Long Beach. Order No. 99-060 expired in June 2004 but has been administratively extended in accordance with federal regulation. Order No. 99-60 remains in effect until the Los Angeles Regional Board adopts a new permit.

Currently the City of Long Beach's MS4 serves a population of approximately 465,576. Additionally, the City of Long Beach's MS4 is interconnected with portions of the MS4 serving the greater Los Angeles County area.

This Order implements the federal Phase I NPDES storm water regulations and includes three fundamental elements: (i) a requirement to effectively prohibit non-storm water discharges that are a source of pollutants through the MS4, (ii) requirements to implement controls to reduce the discharge of pollutants in storm water to the maximum extent practicable, and (iii) other provisions the Regional Water Board determines appropriate for the control of pollutants discharged from the MS4.

C. Geographic Coverage

The permitted area, approximately 47.7 square miles, includes approximately 180 linear miles of MS4. This drainage area consists of approximately 39.28% residential, 5.35% commercial, 20.42% industrial, 5.98% parks, 5.28% planned development, 13.18% roads, and 4.64% unzoned land uses.

The MS4 discharges flow into surface waters located in the Los Angeles River Watershed, Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area, Los Cerritos Channel and Alamitos Bay Watershed Management Area, and San Gabriel River Watershed.

This Order defines Watershed Management Areas (WMAs) consistent with the delineations used in the Los Angeles Regional Board's Watershed Management Initiative. Attachment B includes a map depicting each WMA and the major receiving waters therein that overlap with the City of Long Beach's jurisdictional area.

Federal, state, regional or local entities not named as a Permittee in this Order may operate MS4 facilities and/or discharge to the MS4 and water bodies covered by this Order. Pursuant to 40 CFR sections 122.26(d)(1)(ii) and 122.26(d)(2)(iv), this Order requires the City of Long Beach to maintain the necessary legal authority to control the contribution of pollutants to its MS4 and include in its storm water management program a comprehensive planning process that includes intergovernmental coordination, where necessary to address discharges from facilities outside of the City of Long Beach's

jurisdiction or within the City of Long Beach's jurisdiction but not owned or operated by the City of Long Beach (e.g. California Department of Transportation, Caltrans).

D. Permit Scope

This Order regulates storm water and non-storm water MS4 discharges from the City of Long Beach into surface waters within the jurisdiction of the Regional Water Board. Section 122.26(b)(8) of Title 40 of the Code of Federal Regulations (CFR) defines an MS4 as "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) [o]wned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the CWA that discharges to waters of the United States; (ii) [d]esigned or used for collecting or conveying storm water; (iii) [w]hich is not a combined sewer; and (iv) [w]hich is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

Storm water discharges consist of those discharges that originate from precipitation events. Federal regulations define "storm water" as "storm water runoff, snow melt runoff, and surface runoff and drainage." (40 CFR § 122.26(b)(13).) While "surface runoff and drainage" is not defined in federal law, USEPA's preamble to its final storm water regulations demonstrates that the term is related to precipitation events such as rain and/or snowmelt. (55 *Fed. Reg.* 47990, 47995-96 (Nov. 16, 1990)).

Non-Storm water discharges consist of all discharges through an MS4 that do not originate from precipitation events. non-storm water discharges through an MS4 are prohibited unless authorized under a separate NPDES permit; authorized by USEPA pursuant to Sections 104(a) or 104(b) of the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); composed of natural flows; the result of emergency fire-fighting activities; or conditionally exempted by this Order.

E. Legal Authorities

This Order is issued pursuant to CWA Section 402 and implementing regulations adopted by the US EPA and Chapter 5.5, Division 7 of the California Water Code (commencing with Section 13370). This Order serves as an NPDES permit for MS4 discharges from the City of Long Beach to surface waters. This Order also serves as waste discharge requirements (WDRs) pursuant to Article 4, Chapter 4, Division 7 of the California Water Code (commencing with Section 13260).

F. Background and Rationale for Requirements

The Regional Water Board developed the requirements in this Order based on information from the City of Long Beach's ROWD, monitoring and reporting data, program audits, and other available information. This Order is consistent with the CWA, the CWC and regulations adopted thereunder.

In accordance with federal regulations at 40 CFR section 124.8, the Fact Sheet (Attachment F) has been prepared to explain the principal facts and the significant

factual, legal, methodological, and policy questions considered in preparing this Order. The Fact Sheet is hereby incorporated into this Order and also constitutes part of the Findings of the Regional Water Board for this Order. Attachments A through E and G through I are also incorporated into this Order.

G. Water Quality Control Plans

The CWA requires the Regional Water Board to establish water quality standards for each water body in its region. Water quality standards include beneficial uses, water quality objectives and criteria that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters unless specific circumstances apply. The Regional Water Board adopted a *Water Quality Control Plan - Los Angeles Region* (hereinafter Basin Plan) on June 13, 1994 and has amended it on multiple occasions since 1994. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Los Angeles Region. Pursuant to CWC Section 13263(a), the requirements of this Order implement the Basin Plan. The beneficial uses applicable to the surface water bodies that receive discharges from the City of Long Beach's MS4 generally include those listed in Table 5 below.

Table 5. Designated Beneficial Uses

Receiving Water Name	Beneficial Uses
Los Angeles River	Water contact (REC1) and non-contact water recreation (REC2); ground water recharge (GWR); warm fresh water habitat (WARM); wildlife habitat (WILD); industrial process supply (PROC)
Los Cerritos Channel	Industrial service supply (IND), navigation (NAV); water contact (REC1) and non-contact water recreation (REC2); commercial and sport fishing (COMM); estuarine habitat (EST); marine habitat (MAR), wildlife habitat (WILD); rare, threatened or endangered species habitat (RARE); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development habitat (SPWN); shellfish harvesting (SHELL)
Coyote Creek	Rare, threatened or endangered species habitat (RARE); municipal and domestic supply (MUN); industrial process supply (PROC); water contact (REC1) and non-contact water recreation (REC2); warm fresh water habitat (WARM); wildlife habitat (WILD)
Colorado Lagoon	Water contact (REC1) and non-contact water recreation (REC2); commercial and sport fishing (COMM); warm fresh water habitat (WARM); spawning, reproduction, and/or early development habitat (SPWN); shellfish harvesting (SHELL)
San Gabriel River	Industrial process supply (PROC), agricultural supply (AGR); ground water recharge (GWR); water contact (REC1) and non-contact water recreation (REC2); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD); rare, threatened or endangered species habitat (RARE)

H. Ocean Plan

In 1972, the State Water Resources Control Board (State Water Board) adopted the Water Quality Control Plan for Ocean Waters of California, (Ocean Plan). The State

Water Board adopted the most recent amended Ocean Plan on September 15, 2009. The Office of Administrative Law approved it on March 10, 2010. On October 8, 2010, US EPA approved the 2009 Ocean Plan. The Ocean Plan is applicable, in its entirety, to the ocean waters of the State. In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Ocean Plan. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized in Table 6 below.

Table 6. Designated Beneficial Uses identified in the Ocean Plan

Receiving Water Name	Beneficial Uses
Pacific Ocean	Industrial Service Supply (IND); Water Contact (REC-1) and Non-Contact Recreation (REC-2), including aesthetic enjoyment; Navigation (NAV); Commercial and Sport Fishing (COMM); Mariculture, Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS); Rare and Endangered Species (RARE); Marine Habitat (MAR); Fish Migration (MIGR); Fish Spawning (SPWN) and Shellfish Harvesting (SHELL)
Los Alamitos Bay	Industrial service supply (IND); navigation (NAV); water contact (REC1) and non-contact water recreation (REC2); commercial and sport fishing; estuarine habitat (COMM); marine habitat (MAR); wildlife habitat (WILD); rare, threatened or endangered species (RARE); shellfish harvesting (SHELL); wetland habitat (WET)
Marine Stadium	Water contact (REC1) and non-contact water recreation (REC2); commercial and sport fishing (COMM); marine habitat (MAR); rare, threatened, or endangered species (RARE); wetland habitat (WET)
Long Beach Harbor	Navigation (NAV); water contact (REC1) and non-contact water recreation (REC2); commercial and sportfishing (COMM); marine habitat (MAR); wildlife habitat (WILD); migration of aquatic organisms (MIGR); spawning, reproduction, and/or early development (SPWN); shellfish harvesting (SHELL)

I. Antidegradation Policy

Section 131.12 of 40 CFR requires state water quality standards to include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining the Quality of the Waters of the State"). Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality is maintained unless degradation is justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge is consistent with the antidegradation provision of Section 131.12 and State Water Board Resolution No. 68-16 as described in more detail in the Fact Sheet.

J. Anti-Backsliding Requirements

Section 402(o)(2) of the CWA and federal regulations at 40 CFR Section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. The previous permit did not include any numeric water quality based effluent limitations. The federal technology based limitation requiring controls to reduce the discharge of pollutants in storm water to the maximum extent practicable was carried over from the previous permit. As such, all effluent limitations in this Order are at least as stringent as those in the previous permit.

K. Total Maximum Daily Loads

Section 303(d)(1) of the CWA requires each state to identify the waters within its boundaries that do not meet water quality standards. Water bodies that do not meet water quality standards are considered impaired and are placed on the state's CWA Section 303(d) List. For each listed water body, the state is required to establish a TMDL of each pollutant impairing the water quality standards in that water body. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollutant sources and in-stream water quality conditions. The TMDL establishes the allowable pollutant loadings for a water body and thereby provides the basis to establish water quality-based controls. These controls should provide the pollutant reduction necessary for a water body to meet water quality standards. A TMDL is the sum of the allowable pollutant loads of a single pollutant from all contributing point sources (the waste load allocations or WLAs) and non-point sources (load allocations or LAs), plus the contribution from background sources and a margin of safety (40 CFR § 130.2(i)). MS4 discharges are considered point source discharges.

Numerous receiving waters within Los Angeles County do not meet water quality standards or fully support beneficial uses and therefore have been classified as impaired on the State's 303(d) List. The Regional Water Board and US EPA have each established TMDLs to address many of these water quality impairments. Pursuant to CWA section 402(p)(B)(3)(iii) and 40 CFR section 122.44(d)(1)(vii)(B), this Order includes requirements that are consistent with and implement WLAs that are assigned to MS4 discharges from the City of Long Beach from 9 State-adopted and US EPA established TMDLs. This Order requires the City of Long Beach to comply with the TMDL Provisions in Part VIII, which are consistent with the assumptions and requirements of the WLAs assigned to the City of Long Beach.

The WLAs in these TMDLs are expressed in several ways depending on the nature of the pollutant and its impacts on receiving waters and beneficial uses. Bacteria WLAs assigned to MS4 discharges are expressed as the number of allowable exceedance days that a water body may exceed the Basin Plan water quality objectives for protection of the REC-1 beneficial use. Since the TMDLs and the WLAs contained therein are expressed as receiving water conditions, receiving water limitations have been included in this Order that are consistent with and implement the allowable exceedance day WLAs. Water quality-based effluent limitations are also included equivalent to the Basin Plan water quality objectives to allow the opportunity for the City of Long Beach to individually demonstrate compliance at an outfall or jurisdictional

boundary, thus isolating the City of Long Beach's pollutant contributions from those of other entities and from other pollutant sources to the receiving water.

The WLAs for trash are expressed as progressively decreasing allowable amounts of trash discharges from the City of Long Beach's jurisdictional area within the drainage area to the impaired water body. Trash TMDLs require the City of Long Beach to make annual reductions of its discharges of trash over a set period, until the numeric target of zero trash discharged from the MS4 is achieved. The Trash TMDLs specify a specific formula for calculating and allocating annual reductions in trash discharges from each jurisdictional area within a watershed. The formula results in specified annual amounts of trash that may be discharged from each jurisdiction into the receiving waters. Translation of the WLAs or compliance points described in the TMDLs into jurisdiction-specific load reductions from the baseline levels, as specified in the TMDL, logically results in the articulation of an annual limitation on the amount of a pollutant that may be discharged. The specification of allowable annual trash discharge amounts meets the definition of an "effluent limitation", as that term is defined in subdivision (c) of section 13385.1 of the California Water Code. Specifically, the trash discharge limitations constitute a "numeric restriction ... on the quantity [or] discharge rate ... of a pollutant or pollutants that may be discharged from an authorized location."

The WLAs for other pollutants (e.g. metals and toxics) are expressed as a concentration and/or mass and water quality-based effluent limitations have been specified consistent with the expression of the WLA, including any applicable averaging periods. Some TMDLs specify that, if certain receiving water conditions are achieved, such achievement constitutes attainment of the WLA. In these cases, receiving water limitations and/or provisions outlining these alternate means of demonstrating compliance are included in the TMDL provisions of this Order.

The inclusion of water quality-based effluent limitations and receiving water limitations to implement applicable WLAs provides a clear means of identifying required water quality outcomes within the permit and ensures accountability by the City of Long Beach to implement actions necessary to achieve the limitations.

A number of the TMDLs for bacteria, metals, and toxics establish WLAs that are assigned jointly to a group of Dischargers whose storm water and/or non-storm water discharges are or may be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL. The TMDLs address commingled MS4 discharges by assigning a WLA to a group of MS4 Dischargers based on co-location within the same subwatershed. Dischargers with commingled MS4 discharges are jointly responsible for meeting the water quality-based effluent limitations and receiving water limitations assigned to MS4 discharges in this Order. "Joint responsibility" means the City of Long Beach is responsible for implementing programs in its jurisdiction, or within the MS4 for which it is an owner and/or operator, to meet the water quality-based effluent limitations and/or receiving water limitations assigned to such commingled MS4 discharges. In these cases, federal regulations state that dischargers need only comply with permit conditions relating to discharges from the MS4 for which they are owners or operators (40 CFR Section 122.26(a)(3)(vi)). Individual dischargers are only responsible for their contributions to the commingled MS4 discharge. This Order does not require the City of Long Beach to individually ensure that a commingled MS4 discharge meets the

applicable water quality-based effluent limitations included in this Order, unless the City of Long Beach is shown to be solely responsible for any exceedances.

This Order also allows the City of Long Beach to clarify and distinguish its contribution and demonstrate that the MS4 discharge from its jurisdiction did not cause or contribute to exceedances of applicable water quality-based effluent limitations and/or receiving water limitations. If such a demonstration is made, though the City of Long Beach's discharge may commingle with that of other Dischargers, the City of Long Beach would not be held jointly responsible for the exceedance of the water quality-based effluent limitation or receiving water limitation.

Given the interconnected nature of the MS4s in general, the Regional Water Board expects the City of Long Beach to work cooperatively to control the contribution of pollutants from one portion of the MS4 to another portion of the system through inter-agency agreements or other formal arrangements.

L. Endangered Species Act

This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2115.5) or the Federal Endangered Species Act (16 U.S.C.A., §§ 1531 to 1544). This Order requires compliance with requirements to protect the beneficial uses of waters of the United States. The City of Long Beach is responsible for meeting all requirements of the applicable Endangered Species Act.

M. Monitoring and Reporting

Section 308(a) of the federal Clean Water Act, and 40 CFR sections 122.41(h), (j)-(l), 122.41(i), and 122.48, require that all NPDES permits specify monitoring and reporting requirements. Federal regulations applicable to large and medium MS4s also specify additional monitoring and reporting requirements. (40 C.F.R. §§ 122.26(d)(2)(i)(F) & (d)(2)(iii)(D), 122.42(c).) California Water Code Section 13383 authorizes the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program in this Order requires monitoring, reporting, and recordkeeping requirements that implement the federal and state laws and/or regulations. This Monitoring and Reporting Program is provided in Attachment E.

N. Standard and Special Provisions

The standard provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. The City of Long Beach must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR section 122.42 provided in Attachment D. The Regional Water Board has also included various special provisions applicable to the City of Long Beach in Part VII of this Order. The rationale for the special provisions contained in this Order is provided in the Fact Sheet (Attachment F).

O. State Mandates

Article XIII B, section 6(a) of the California Constitution provides that whenever "any state agency mandates a new program or higher level of service on any local

government, the state shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." The requirements of this Order do not constitute state mandates that are subject to a subvention of funds for several reasons as described in detail in the attached Fact Sheet (Attachment F).

P. California Water Code Section 13241

The California Supreme Court has ruled that although California Water Code section 13263 requires the State and Regional Water Boards (collectively, Water Boards) to consider the factors set forth in California Water Code section 13241 when issuing an NPDES permit, the Water Boards may not consider the factors to justify imposing pollutant restriction that are less stringent than the applicable federal regulations require. (*City of Burbank v. State Water Resources Control Bd.* (2005) 35 Cal.4th 613, 618, 626-627). However, when the pollutant restrictions in an NPDES permit are more stringent than federal law requires, California Water Code section 13263 requires that the Water Boards consider the factors described in section 13241 as they apply to those specific restrictions. As noted in the preceding finding, the Regional Water Board finds that the requirements in this permit are not more stringent than the minimum federal requirements. Therefore, a 13241 analysis is not required for permit requirements that implement the effective prohibition on the discharge of non-storm water discharges into the MS4, or for controls to reduce the discharge of pollutants in storm water to the maximum extent practicable, or other provisions that the Regional Water Board has determined appropriate to control such pollutants, as those requirements are mandated by federal law. Notwithstanding the above, the Regional Water Board has developed an economic analysis of the permit's requirements, consistent with California Water Code section 13241. That analysis is provided in the Fact Sheet (Attachment F of this Order).

Q. California Environmental Quality Act

The action to adopt an NPDES Permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code, § 21100, et seq.) pursuant to California Water Code section 13389. (*County of Los Angeles v. Cal. Water Boards* (2006) 143 Cal.App.4th 985.)

R. Notification of Interested Parties

In accordance with State and federal laws and regulations, the Regional Water Board notified the City of Long Beach and interested agencies and persons of its intent to prescribe WDRs for the discharges authorized by this Order and provided them with opportunities to provide written and oral comments. The Fact Sheet contains the details on notifications, meetings, and workshops held during the drafting and consideration of this Order.

S. Consideration of Public Comment

The Regional Water Board, in a public meeting, heard and considered all oral and written comments pertaining to the discharges authorized by this Order and the requirements contained herein. The Regional Water Board prepared written responses to all timely comments, and these responses are incorporated by reference as part of this Order.

T. NPDES Permit

This Order serves as an NPDES permit pursuant to CWA section 402 or amendments thereto, and becomes effective fifty (50) days after the date of its adoption, provided the US EPA Region IX Regional Administrator expresses no objections.

U. Previous Order Superseded

This Order supersedes Order No. 99-060 except for enforcement purposes.

V. Review by the State Water Resources Control Board

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, Title 23, Sections 2050 and following. The State Water Board must ***receive*** the petition by 5:00 p.m., 30 days after the Regional Water Board action, except that if the thirtieth day following the action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

THEREFORE, IT IS HEREBY ORDERED, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with Section 13000), and regulations, plans, and policies adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, the City of Long Beach shall comply with the following requirements in this Order.

III. DISCHARGER RESPONSIBILITIES

A. The City of Long Beach is required to comply with the requirements of this Order applicable to discharges within its boundaries. The City shall do the following:

1. Comply with the provisions in this Order including attachments and any modifications thereto.
2. Inform the Regional Water Board of instances of non-compliance pursuant to the MRP.
3. Submit complete and timely reports including but not limited to non-compliance reporting, annual reports, monitoring reports, and the report of waste discharge.
4. Coordinate among its internal departments and agencies, as necessary, to facilitate the implementation of the requirements of this Order in an efficient and cost-effective manner.
5. Participate in intra-agency coordination (e.g. Planning Department, Fire Department, Building and Safety, Code Enforcement, Public Health, Parks and Recreation, and others) and inter-agency coordination (e.g. other dischargers) necessary to successfully implement the provisions of this Order.

IV. DISCHARGE PROHIBITIONS

A. Toxic Substances

Any discharge from the MS4 into surface waters in concentrations acutely or chronically toxic to animal or plant life is prohibited.

B. Non-Storm Water Discharges

1. **Prohibition of Non-Storm Water Discharges.** The City of Long Beach shall prohibit non-storm water discharges through the MS4 to receiving waters except where such discharges are either:
   - **a.** Authorized non-storm water discharges separately regulated by an individual or general NPDES permit;
   - **b.** Temporary non-storm water discharges authorized by US EPA[4] pursuant to sections 104(a) or 104(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that either: (i) will comply with water quality standards as applicable or relevant and appropriate requirements ("ARARs") under section 121(d)(2) of CERCLA; or (ii) are subject to either (a) a written waiver of ARARs by US EPA pursuant to section 121(d)(4) of CERCLA or (b) a written determination by US EPA that compliance with ARARs is not practicable considering the exigencies of the situation pursuant to 40 CFR section 300.415(j);
   - **c.** Authorized non-storm water discharges from emergency fire-fighting activities (i.e., flows necessary for the protection of life or property)[5];
   - **d.** Conditionally exempt non storm water discharges in accordance with Part IV.B.2 of this Order; or
   - **e.** Natural flows, including:
     - **i.** Natural springs;

[4] These typically include short-term, high volume discharges resulting from the development or redevelopment of groundwater extraction wells, or US EPA or state-required compliance testing of potable water treatment plants, as part of a US EPA authorized groundwater remediation action under CERCLA.

[5] Discharges from vehicle washing, building fire suppression system maintenance and testing (e.g., sprinkler line flushing), fire hydrant maintenance and testing, and other routine maintenance activities are not considered emergency fire-fighting activities.

ii. Flows from riparian habitats and wetlands;
iii. Diverted stream flows, authorized by the State or Regional Water Board;
iv. Uncontaminated ground water infiltration[6];
v. Rising ground waters, where ground water seepage is not otherwise covered by a NPDES permit[7].

2. **Conditional Exemptions from Non-Storm Water Discharge Prohibition**
The following categories of non-storm water discharges are conditionally exempt from the non-storm water discharge prohibition, provided they meet all required conditions specified below, or as otherwise approved by the Regional Water Board Executive Officer, in all areas regulated by this Order.

a. Conditionally Exempt Essential Non-Storm Water Discharges: These consist of those discharges that fall within one of the categories below, meet all required best management practices (BMPs) as specified in Part IV.B.2.i and ii including those enumerated in the referenced BMP manuals, are essential public services discharge activities, and are directly or indirectly required by other state or federal statute and/or regulation.

i. Discharges from essential non-emergency fire-fighting activities provided appropriate BMPs are implemented based on the CAL FIRE, Office of the State Fire Marshal's Water-Based Fire Protection Systems Discharge Best Management Practices Manual (September 2011) for water-based fire protection system discharges, and based on Riverside County's Best Management Practices Plan for Urban Runoff Management (May 1, 2004) or equivalent BMP manual for fire training activities and post-emergency fire-fighting activities;

ii. Discharges from drinking water supplier distribution systems, not otherwise regulated by an individual or general NPDES permit , provided appropriate BMPs are implemented based on the American Water Works Association (California-Nevada Section) Guidelines for the Development of Your Best Management Practices (BMP) Manual for Drinking Water System Releases (2005) or equivalent industry standard BMP manual. Additionally, the City of Long Beach shall work with drinking water suppliers that may discharge to the MS4 to ensure for all discharges greater than 100,000 gallons: (1) notification at least 72 hours prior to a planned discharge and as soon as possible after an unplanned discharge; (2) monitoring of any pollutants of concern in the drinking water supplier distribution system release; and (3) record keeping by the drinking water supplier. The City of Long Beach shall require that the following information is maintained by the drinking water supplier(s) for all discharges to the MS4 (planned and unplanned) greater than 100,000 gallons: name of discharger, date and time of notification (for planned discharges), method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, total

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[6] Uncontaminated ground water infiltration is water other than waste water that enters the MS4 (including foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow. (See 40 CFR § 35.2005(20).)

[7] A NPDES permit for discharges associated with ground water dewatering is required within the Los Angeles Region.

number of gallons discharged, type of dechlorination equipment used, type of dechlorination chemicals used, concentration of residual chlorine, type(s) of sediment controls used, pH of discharge, type(s) of volumetric and velocity controls used, and field and laboratory monitoring data. Records shall be retained for five years and made available upon request by the City of Long Beach or Regional Water Board.

b. Those discharges that fall within one of the categories below, provided that the discharge itself is not a source of pollutants and meets all required conditions specified in Table 7 or as otherwise specified or approved by the Regional Water Board Executive Officer:

- **i.** Lake dewatering ;
- **ii.** Landscape irrigation;
- **iii.** Dechlorinated/debrominated swimming pool/spa discharges , where not otherwise regulated by a separate NPDES permit;
- **iv.** Dewatering of decorative fountains;
- **v.** Non-commercial car washing by residents or by non-profit organizations;
- **vi.** Street/sidewalk wash water;
- **vii.** Short-term releases of potable water with no additives or dyes for filming purposes;
- **viii.** Potable wash water used to clean reservoir covers.

3. Permittee Requirements

a. The City of Long Beach shall develop and implement procedures to ensure that a discharger fulfills the following for non-storm water discharges to the MS4:

- **i.** Notifies the City of Long Beach of the planned discharge in advance, consistent with requirements in Table 7 or recommendations pursuant to the applicable BMP manual;
- **ii.** Obtains any local permits required by the City of Long Beach;
- **iii.** Provides documentation to the City of Long Beach that it has obtained any other necessary permits or water quality certifications[8] for the discharge;
- **iv.** Conducts monitoring of the discharge, if required by the City of Long Beach;
- **v.** Implements BMPs and/or control measures as specified in Table 7 or in the applicable BMP manual(s) as a condition of the approval to discharge into the MS4; and
- **vi.** Maintains records of its discharge to the MS4, consistent with requirements in Table 7 or recommendations pursuant to the applicable BMP manual. For lake dewatering, the City of Long Beach shall require the lake owner / operator to maintain the following information: name of discharger, date and time of notification, method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, total number of gallons discharged, type(s) of sediment controls used, pH of discharge, type(s) of volumetric and velocity controls used, and field and laboratory monitoring data. These records shall be

[8] Requirement of the Clean Water Act Section 401.

made available upon request to the City of Long Beach or the Regional Water Board.

b. The City of Long Beach shall organize and maintain records of all non-storm water discharges greater than 100,000 gallons, notifications, and local permits in an electronic database.

c. The City of Long Beach shall develop and implement procedures that minimize the discharge of landscape irrigation water into the MS4 by promoting conservation programs as follows:

i. The City of Long Beach shall coordinate with the local water purveyor(s), where applicable, to promote landscape water use efficiency requirements for existing landscaping, use of drought tolerant, native vegetation, and the use of less toxic options for pest control and landscape management.

ii. The City of Long Beach shall develop and implement a coordinated outreach and education program to minimize the discharge of irrigation water and pollutants associated with irrigation water consistent with Part VII.G.3 (Public Information and Participation Program).

d. The City of Long Beach shall evaluate monitoring data collected pursuant to the Monitoring and Reporting Program (MRP) of this Order (Attachment E), and any other associated data or information, and determine whether any of the authorized or conditionally exempt non-storm water discharges identified in Part IV.B.1 above are a source of pollutants that may be causing or contributing to an exceedance of applicable receiving water limitations in Part VI.A and/or water quality-based effluent limitations in Part VIII. To evaluate monitoring data, the City of Long Beach shall either use applicable interim or final water quality-based effluent limitations for the pollutant or, if there are no applicable interim or final water quality-based effluent limitations for the pollutant, use applicable action levels provided in Attachment G. Based on non-storm water outfall-based monitoring as implemented through the MRP, if monitoring data show exceedances of applicable water quality-based effluent limitations or action levels, the City of Long Beach shall take further action to determine whether the discharge is causing or contributing to exceedances of receiving water limitations in Part VI.A.

e. If the City of Long Beach determines that any of the conditionally exempt non-storm water discharges identified in Part IV.B.1 above is a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations, the City of Long Beach shall report its findings to the Regional Water Board in its annual report. Based on this determination, the City of Long Beach shall also either:

i. Effectively prohibit[9] the non-storm water discharge to the MS4; or

ii. Impose conditions in addition to those in Table 7, subject to approval by the Regional Water Board Executive Officer, on the non-storm water discharge such that it will not be a source of pollutants; or

[9] To "effectively prohibit" means to not allow the non-storm water discharge through the MS4 unless the discharger obtains coverage under a separate NPDES permit prior to discharge to the MS4.

iii. Require diversion of the non-storm water discharge to the sanitary sewer; or

iv. Require treatment of the non-storm water discharge prior to discharge to the receiving water.

f. If the City of Long Beach determines that any of the authorized or conditionally exempt essential non-storm water discharges identified in Parts IV.B.1.a-c or IV.B.2.a.i or ii above is a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations, the City of Long Beach shall notify the Regional Water Board within 30 days if the non-storm water discharge is an authorized discharge with coverage under a separate NPDES permit or authorized by USEPA under CERCLA in the manner provided in Part IV.B.1.a-b above, or a conditionally exempt essential non-storm water discharge or emergency non-storm water discharge.

g. If the City of Long Beach prohibits the discharge from the MS4, as per Part IV.B.3.e.i, then the City of Long Beach shall implement procedures developed under Part VII.M (Illicit Connections and Illicit Discharges Elimination Program) in order to eliminate the discharge to the MS4.

h. If the City of Long Beach demonstrates that the water quality characteristics of a specific authorized or conditionally exempt essential non-storm water discharge resulted in an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations during a specific sampling event, the City of Long Beach shall not be found in violation of applicable receiving water limitations and/or water quality-based effluent limitations for that specific sampling event. Such demonstration must be based on source specific water quality monitoring data from the authorized or conditionally exempt essential non-storm water discharge or other relevant information documenting the characteristics of the specific non-storm water discharge as identified in Table 7.

i. Notwithstanding the above, the Regional Water Board Executive Officer, based on an evaluation of monitoring data and other relevant information for specific categories of non-storm water discharges, may modify a category or remove categories of conditionally exempt non-storm water discharges from Part IV.B.1 above if the Executive Officer determines that a discharge category is a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations, or may require that a discharger obtain coverage under a separate individual or general State or Regional Water Board permit for a non-storm water discharge.

Table 7. Required Conditions for Conditionally Exempt Non-storm Water Discharges

Discharge Category	General Requirements for Exempt MS4 Discharges	Requirements/Required BMPs Prior to Discharge into Surface Waters from the MS4
All Discharge Categories	See discharge specific conditions below.	Ensure conditionally exempt non-storm water discharges avoid potential sources of pollutants in the flow path to prevent introduction of pollutants to the MS4 and receiving water. Whenever there is a discharge of 100,000 gallons or more into the MS4, the City of Long Beach shall require notification in advance.
Lake Dewatering	Discharge allowed only if all necessary permits/water quality certifications for dredge and fill activities, including water diversions, are obtained prior to discharge.	Ensure procedures for advanced notification by the lake owner / operator to the City of Long Beach no less than 72 hours prior to the planned discharge. Immediately prior to discharge, visible trash on the shoreline or on the surface of the lake shall be removed and disposed of in a legal manner. Immediately prior to discharge, the discharge pathway and the MS4 inlet to which the discharge is directed shall be inspected and cleaned out. Discharges shall be volumetrically and velocity controlled to minimize sediment re-suspension. Measures shall be taken to stabilize lake bottom sediments. Ensure procedures for water quality monitoring for pollutants of concern10 in the lake. Ensure record-keeping of lake dewatering by the lake owner / operator.

[10] Pollutants of concern include, at a minimum, trash and debris, including organic matter, TSS, and any pollutant for which there is a water quality-based effluent limitation in Part VIII for the lake and/or receiving water.

Discharge Category	General Requirements for Exempt MS4 Discharges	Requirements/Required BMPs Prior to Discharge into Surface Waters from the MS4
Landscape irrigation using potable water	Discharge allowed if runoff due to potable landscape irrigation is minimized through the implementation of an ordinance specifying water *efficient landscaping* standards, as well as an outreach and education program focusing on water conservation and landscape water use efficiency.	Implement BMPs to minimize runoff and prevent introduction of pollutants to the MS4 and receiving water. Implement water conservation programs to minimize discharge by using less water.
Landscape irrigation using reclaimed or recycled water	Discharge of reclaimed or recycled water runoff from landscape irrigation is allowed if the discharge is in compliance with the producer and distributor operations and management (O&M) plan, and all relevant portions thereof, including the Irrigation Management Plan.	Discharges must comply with applicable O&M Plans, and all relevant portions thereof, including the Irrigation Management Plan.
Dechlorinated/ debrominated *swimming* pool/spa discharges	Discharges allowed after implementation of specified BMPs. Pool or spa water containing copper-based algaecides is not allowed to be discharged to the MS4. *Discharges of cleaning waste* water and filter backwash allowed only if authorized by a separate NPDES permit.	Implement BMPs and ensure discharge avoids potential sources of pollutants in the flow path to prevent introduction of pollutants prior to discharge to the MS4 and receiving water. Swimming pool water must be de-chlorinated or de-brominated using holding time, aeration, and/or sodium thiosulfate. Chlorine residual in the discharge shall not exceed 0.1 mg/L. Swimming pool water shall not contain any detergents, wastes, or algaecides, or any other chemicals including salts from pools commonly referred to as "salt water pools" in excess of applicable water quality objectives.[11] Swimming pool discharges are to be pH adjusted, if necessary, and be within the range of 6.5 and 8.5 standard units. Swimming pool discharges shall be volumetrically and velocity controlled to promote evaporation and/or

[11] Applicable mineral water quality objectives for surface waters are contained in Chapter 3 of the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.

Discharge Category	General Requirements for Exempt MS4 Discharges	Requirements/Required BMPs Prior to Discharge into Surface Waters from the MS4
		infiltration. Ensure procedures for advanced notification by the pool owner to the City of Long Beach(s) at least 72 hours prior to planned discharge for discharges of 100,000 gallons or more. For discharges of 100,000 gallons or more, immediately prior to discharge, the discharge pathway and the MS4 inlet to which the discharge is directed, shall be inspected and cleaned out.
Dewatering of decorative fountains	Discharges allowed after implementation of specified BMPs. Fountain water containing copper-based algaecides may not be discharged to the MS4. Fountain water containing dyes my not be discharged to the MS4.	Implement BMPs and ensure discharge avoids potential sources of pollutants in the flow path to prevent introduction of pollutants prior to discharge to the MS4 and receiving water. Fountain water must be de-chlorinated or de-brominated using holding time, aeration, and/or sodium thiosulfate. Chlorine residual in the discharge shall not exceed 0.1 mg/L. Fountain discharges are to be pH adjusted, if necessary, and be within the range of 6.5 and 8.5 standard units. Fountain discharges shall be volumetrically and velocity controlled to promote evaporation and/or infiltration. Ensure procedures for advanced notification by the fountain owner to the City of Long Beach(s) at least 72 hours prior to planned discharge for discharges of 100,000 gallons or more. For discharges of 100,000 gallons or more, immediately prior to discharge, the discharge pathway and the MS4 inlet to which the discharge is directed, shall be inspected and cleaned out.
Non-commercial car washing by residents or by non-profit organizations	Discharges allowed after implementation of specified BMPs.	Implement BMPs and ensure discharge avoids potential sources of pollutants in the flow path to prevent introduction of pollutants prior to discharge to the MS4 and receiving water. Minimize the amount of water used by employing water conservation practices such as turning off nozzles or kinking the hose when not spraying a car, and using a low volume pressure washer. Encourage use of biodegradable, phosphate free detergents and non-toxic cleaning products. Where possible, wash cars on a permeable surface where wash water can percolate into the ground (e.g. gravel or grassy areas). Empty buckets of soapy or rinse water into the sanitary sewer system (e.g., sinks or toilets).
Street/sidewalk	Discharges allowed after implementation of specified	Sweeping should be used as an alternate BMP whenever possible and sweepings should be disposed of in

Discharge Category	General Requirements for Exempt MS4 Discharges	Requirements/Required BMPs Prior to Discharge into Surface Waters from the MS4
wash water	BMPs.	the trash. BMPs shall be in accordance with Regional Water Board Resolution No. 98-08 that requires: 1) removal of trash, debris, and free standing oil/grease spills/leaks (use absorbent material if necessary) from the area before washing and 2) use of high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area. In areas of unsanitary conditions (e.g., areas where the congregation of transient populations can reasonably be expected to result in a significant threat to water quality), whenever practicable, the City of Long Beach shall collect and divert street and alley wash water from street and sidewalk cleaning public agency activities to the sanitary sewer.
Potable water discharges for filming activities		Prior to discharging the water, the storm drain to the receiving water where the discharge will occur as well as the area in the immediate vicinity of the outlet to the receiving water, and the adjacent downstream portion of the channel that will be influenced by the discharge must be cleaned of all pre-existing trash and debris, and kept free of trash and debris during filming. No trash or debris from the filming activities shall be allowed to remain in the storm drain or channel. Each day, prior to water discharge for the movie scenes, a walk-through of the filming area (including the targeted storm drain and receiving water) will be conducted by a City of Long Beach Public Works representative to assure that all trash and debris has been removed and no illicit discharges are observed. The source of the water that will be discharged will be de-ionized, chlorine free water. In receiving waters where scour of the channel is a concern, the water must be discharged at a steady, low velocity to minimize scour. Upon the completion of the discharges and associated filming, the City of Long Beach shall visually inspect the storm drain and channel downstream of the storm drain outlet to remove any possible trash or debris related to the discharge and filming activities.
Potable wash water discharges associated with reservoir cover cleaning	Per the Operations and Maintenance Plan approved by the CDPH	Create a list of the total number of reservoir covers that must be cleaned to comply with CDPH operations and maintenance requirements for reservoir covers; the list should also include the annual cleaning frequency, the address where the reservoirs are located; and the type and size (surface area) of the reservoir covers. The cleaning of the reservoirs shall be done in such a way that minimizes the amount of water used to clean the cover; Waste water from the cleaning of the reservoir covers shall be discharged to a sanitary sewer or allowed to percolate into the ground; and the discharge shall not cause or contribute to erosion in the area where it will

Discharge Category	General Requirements for Exempt MS4 Discharges	Requirements/Required BMPs Prior to Discharge into Surface Waters from the MS4
		be percolation; If Waste water from the cleaning of the reservoir covers is percolated into the ground, the wash water shall not contain solvents, or other contaminants that might migrate into and contaminate the groundwater supplies.

V. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. Technology Based Effluent Limitations

The City of Long Beach shall reduce pollutants in storm water discharges from the MS4 to the MEP.

2. Water Quality-Based Effluent Limitations

The City of Long Beach shall comply with applicable water quality based effluent limitations (WQBELs) as set forth in Part VIII of this Order, pursuant to applicable compliance schedules. The WQBELs in this Order are consistent with the assumptions and requirements of the TMDL waste load allocations assigned to discharges from the MS4.[12]

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

VI. RECEIVING WATER LIMITATIONS

A. Receiving Water Limitations

1. Discharges from the MS4 that cause or contribute to the violation of receiving water limitations are prohibited.

2. Discharges from the MS4 of storm water, or non-storm water, for which the City of Long Beach is responsible[13], shall not cause or contribute to a condition of nuisance.

3. The City of Long Beach shall comply with Parts VI.A.1 and VI.A.2 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the storm water management program and its components and other requirements of this Order including any modifications. The storm water management program and its components shall be designed to achieve compliance with receiving water limitations. If exceedances of receiving water limitations persist, notwithstanding implementation of the storm water management program and its components and other requirements of this Order, the City of Long Beach shall assure compliance with discharge prohibitions and receiving water limitations by complying with the following procedure:

   a. Upon a determination by either the City of Long Beach or the Regional Water Board that discharges from the MS4 are causing or contributing to an exceedance of an applicable receiving water limitation, the City of Long Beach shall promptly notify and thereafter submit an Integrated Monitoring Compliance Report (as described in the Program Reporting Requirements, Part XVIII.A.5 of the Monitoring and Reporting Program) to the Regional Water Board for approval. The Integrated Monitoring Compliance Report shall

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[12] According to 40 CFR § 130.2, wasteload allocations constitute a type of water quality based effluent limitation. Pursuant to 40 CFR § 122.2, effluent limitation means any restriction imposed by the permitting authority on quantities, discharge rates, and concentrations of pollutants that are discharged from point sources. The Regional Water Board generally uses the term "effluent limitation" in the context of permits and has done so here; however, the two terms, "water quality based effluent limitation" and "wasteload allocation" when used in the context of a NPDES permit can be interchangeable.

[13] Pursuant to 40 CFR § 122.26(a)(3)(vi), the Discharger is only responsible for discharges of storm water and non-storm water from the MS4 for which it is an owner or operator.

describe the BMPs that are currently being implemented by the City of Long Beach and additional BMPs, including modifications to current BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedances of receiving water limitations. The Integrated Monitoring Compliance Report shall include an implementation schedule. This Integrated Monitoring Compliance Report shall be incorporated in the City of Long Beach's annual storm water report unless the Regional Water Board directs an earlier submittal. The Regional Water Board may require modifications to the Integrated Monitoring Compliance Report.

b. The City of Long Beach shall submit any modifications to the Integrated Monitoring Compliance Report required by the Regional Water Board within 30 days of notification.

c. Within 30 days following the Regional Water Board Executive Officer's approval of the Integrated Monitoring Compliance Report, the City of Long Beach shall revise the storm water management program and its components and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, an implementation schedule, and any additional monitoring required.

d. The City of Long Beach shall implement the revised storm water management program and its components and monitoring program according to the approved implementation schedule.

4. So long as the City of Long Beach has complied with the procedures set forth in Part VI.A.3. above and is implementing the revised storm water management program and its components, the City of Long Beach does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Water Board to modify current BMPs or develop additional BMPs.

B. Ground Water Limitations – Not Applicable

VII. Provisions

A. Standard Provisions

1. Federal Standard Provisions. The City of Long Beach shall comply with all Standard Provisions included in Attachment D of this Order, in accordance with 40 CFR sections 122.41 and 122.42.

2. Legal Authority

a. The City of Long Beach must establish and maintain adequate legal authority, within its respective jurisdiction, to control pollutant discharges into and from its MS4 through ordinance, statute, permit, contract or similar means. This legal authority must, at a minimum, authorize or enable the City to:

i. Control the contribution of pollutants to the MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with

coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.

ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part IV.B;

iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4;

iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;

v. Require compliance with conditions in City ordinances, permits, contracts or orders (i.e., hold dischargers to the MS4 accountable for their contributions of pollutants and flows);

vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders;

vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among other owners/operators of a MS4, including but not limited to permittees covered under the Los Angeles County MS4 Permit (Order No. R4-2012-0175) and the California Department of Transportation;

viii. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the City of Long Beach must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into the MS4;

ix. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations;

x. Require that structural BMPs are properly operated and maintained; and

xi. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.

b. The City of Long Beach must submit a statement certified by its chief legal counsel that it has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR section 122.26(d)(2)(i)(A-F) and this Order. The City of Long Beach shall submit this certification annually as part of its Annual Report beginning with the first Annual Report required under this Order. These statements must include:

i. Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR section 122.26(d)(2)(i)(A)-(F) and of this Order; and

ii. Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system.

3. **Fiscal Resources**

a. The City of Long Beach shall conduct a fiscal analysis of the annual capital and operation and maintenance expenditures necessary to implement the requirements of this Order.

b. The City of Long Beach shall also enumerate and describe in its Annual Report the source(s) of funds used in the past year, and proposed for the coming year, to meet necessary expenditures on the City's storm water management program.

4. **Public Review**

All documents submitted to the Regional Water Board in compliance with the terms and conditions of this Order shall be made available to members of the public pursuant to the Freedom of Information Act (5 U.S.C. § 552 (as amended)) and the Public Records Act (Cal. Government Code § 6250 et seq.). All documents submitted to the Regional Water Board Executive Officer for approval shall be made available to the public for a 30-day period to allow for public comment.

5. **Regional Water Board Review**

Any formal determination or approval made by the Regional Water Board Executive Officer pursuant to the provisions of this Order may be reviewed by the Regional Water Board. The City of Long Beach or a member of the public may request such review upon petition within 30 days of the effective date of the notification of such decision to the City of Long Beach and interested parties on file at the Regional Water Board.

6. **Re-opener and Modification**

a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 124.5, 125.62, and 125.64. Causes for taking such actions include, but are not limited to:

i. Endangerment to human health or the environment resulting from the permitted activity, including information that the discharge(s) regulated by this Order may have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses;

ii. Acquisition of newly-obtained information that would have justified the application of different conditions if known at the time of Order adoption;

iii. To address changed conditions identified in required reports or other sources deemed significant by the Regional Water Board;

iv. To incorporate provisions as a result of future amendments to the Basin Plan, such as a new or revised water quality objective or the adoption or reconsideration of a TMDL, including the program of implementation. Within 18 months of the effective date of a revised TMDL or as soon as practicable

thereafter, where the revisions warrant a change to the provisions of this Order, the Regional Water Board may modify this Order consistent with the assumptions and requirements of the revised WLA(s), including the program of implementation;

v. To incorporate provisions as a result of new or amended statewide water quality control plans or policies adopted by the State Water Board, or in consideration of any State Water Board action regarding the precedential language of State Water Board Order WQ 99-05;

vi. To incorporate provisions as a result of the promulgation of new or amended federal or state laws or regulations, USEPA guidance concerning regulated activities, or judicial decisions that becomes effective after adoption of this Order.

vii. To incorporate effluent limitations for toxic constituents determined to be present in significant amount in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the reasonable potential analysis;

viii. In accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new Minimum Levels (MLs); and/or

ix. To include provisions or modifications to WQBELs in Part VIII in this Order prior to the final compliance deadlines, if practicable, that would allow an action-based, BMP compliance demonstration approach with regard to final WQBELs for storm water discharges. Such modifications shall be based on the Regional Water Board's evaluation of whether Watershed Management Programs in Part VII.C have resulted in attainment of interim WQBELs for storm water and review of relevant research, including but not limited to data and information provided by the City of Long Beach, other MS4 Permittees and other stakeholders, on storm water quality and the efficacy and reliability of storm water control technologies. Provisions or modifications to WQBELs in Part VIII shall only be included in this Order where there is evidence that storm water control technologies can reliably achieve final WQBELs.

b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

i. Violation of any term or condition contained in this Order;

ii. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts; or

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

c. The filing of a request by the City of Long Beach for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

d. This Order may be modified to make corrections or allowances for changes in the permitted activity, following the procedures at 40 CFR section 122.63, if processed as a minor modification. Minor modifications may only:

i. Correct typographical errors; or
ii. Require more frequent monitoring or reporting by the City of Long Beach.

7. Any discharge of waste to any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of this Order.

8. A copy of this Order shall be maintained by the City of Long Beach so as to be available during normal business hours to City employees responsible for implementation of the provisions of this Order and members of the public.

9. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream that may ultimately be released to waters of the United States, is prohibited, unless specifically authorized elsewhere in this Order or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.

10. Oil or oily material, chemicals, refuse, or other pollution causing materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

11. If there is any storage of hazardous or toxic materials or hydrocarbons at a facility owned and/or operated by the City of Long Beach and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

12. **Enforcement**

a. Violation of any of the provisions of this Order may subject the City of Long Beach to any of the penalties described herein or in Attachment D of this Order, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

b. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges through the MS4 to receiving waters, may subject the City of Long Beach to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject the City of Long Beach to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

c. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

d. California Water Code Section 13385(h)(1) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each serious violation. Pursuant to California Water Code Section 13385(h)(2),

a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR section 123.45 specifies the Group I and II pollutants. Pursuant to California Water Code Section 13385.1(a)(1), a "serious violation" is also defined as "a failure to file a discharge monitoring report required pursuant to Section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations."

e. California Water Code Section 13385(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three violations within that time period.

f. Pursuant to California Water Code Section 13385.1(d), for the purposes of Section 13385.1 and Subdivisions (h), (i), and (j) of Section 13385, "effluent limitation" means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim, and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.

g. Unlike Subdivision (c) of California Water Code Section 13385, where violations of effluent limitations may be assessed administrative civil liability on a per day basis, the mandatory minimum penalties provisions identified above require the Regional Water Board to assess mandatory minimum penalties for "each violation" of an effluent limitation. Some water quality-based effluent limitations in this Order (e.g., trash, as described immediately below) are expressed as annual effluent limitations. Therefore, for such limitations, there can be no more than one violation of each interim or final effluent limitation per year.

h. Trash TMDLS

i. Consistent with the 2009 amendments to Order No. 01-182 to incorporate the Los Angeles River Trash TMDL, the water quality-based effluent limitations in Part VIII of this Order for trash are expressed as annual effluent limitations. Therefore, for such limitations, there can be no more than one violation of each interim or final effluent limitation per year. Trash is considered a Group I pollutant, as specified in Appendix A to 40 CFR section 123.45. Therefore, each annual violation of a trash effluent limitation in Part VIII of this Order by forty percent or more would be considered a "serious violation" under California Water Code section 13385(h). With respect to the final effluent limitation of zero trash, any detectable discharge of trash necessarily is a serious violation, in accordance with the State Water Board's Enforcement Policy. Violations of the effluent limitations in Part VIII of this Order would not constitute "chronic" violations that would give rise to

mandatory liability under California Water Code section 13385(i) because four or more violations of the effluent limitations subject to a mandatory penalty cannot occur in a period of six consecutive months.

ii. For the purposes of enforcement under California Water Code section 13385, subdivisions (a), (b), and (c), not every storm event may result in trash discharges. In trash TMDLs adopted by the Regional Water Board, the Regional Water Board states that improperly deposited trash is mobilized during storm events of greater than 0.25 inches of precipitation. Therefore, violations of the effluent limitations are limited to the days of a storm event of greater than 0.25 inches. Once the City of Long Beach has violated the annual effluent limitation, any subsequent discharges of trash during any day of a storm event of greater than 0.25 inches during the same storm year constitutes an additional "day in which the violation [of the effluent limitation] occurs".

13. This Order does not exempt the City of Long Beach from compliance with any other laws, regulations, or ordinances that maybe applicable.

14. The provisions of this Order are severable. If any provisions of this Order or the application of any provision of this Order to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected.

B. Monitoring and Reporting Program Requirements

The City of Long Beach shall comply with the monitoring and reporting requirements (MRP) and future revisions thereto, in Attachment E of this Order or may, in coordination with an approved Watershed Management Program per Part VII.C, implement a customized monitoring program that achieves the five Primary Objectives set forth in Part II.A. of Attachment E and includes the elements set forth in Part II.E. of Attachment E.

C. Watershed Management Programs

1. General

a. The purpose of this Part VII.C is to allow the City of Long Beach the flexibility to develop Watershed Management Programs to implement the requirements of this Order on a watershed scale through customized strategies, control measures, and BMPs.

b. Participation in a Watershed Management Program is voluntary and allows the City of Long Beach to address the highest watershed priorities, including complying with the requirements of Part VI.A. (Receiving Water Limitations) and Part VIII (Total Maximum Daily Load Provisions), by customizing the control measures in Parts IV (Discharge Prohibitions) and VII.D (Minimum Control Measures).

c. The City of Long Beach shall implement customized strategies, control measures, and BMPs on a watershed basis, where applicable, through the City of Long Beach's storm water management program and/or collectively if collaborating with other entities through a Watershed Management Program.

d. The Watershed Management Programs shall ensure that discharges from the MS4: (i) achieve applicable water quality-based effluent limitations in Parts V.A.2

and VIII, pursuant to the corresponding compliance schedules, (ii) do not cause or contribute to exceedances of receiving water limitations in Parts VI.A and VIII, and (iii) do not include non-storm water discharges that are effectively prohibited pursuant to Part IV.B. The programs shall also ensure that controls are implemented to reduce the discharge of pollutants to the MEP pursuant to Part V.A.1.

e. Watershed Management Programs shall be developed either collaboratively or individually using the Regional Water Board's Watershed Management Areas (WMAs). Where appropriate, WMAs may be separated into subwatersheds to focus water quality prioritization and implementation efforts by receiving water.

f. Each Watershed Management Program shall be consistent with the Program Development provisions of this Part VII.C and shall:

- **i.** Prioritize water quality issues resulting from storm water and non-storm water discharges from the MS4 to receiving waters within each WMA,
- **ii.** Identify and implement strategies, control measures, and BMPs to achieve the outcomes specified in Part VII.C.1.d,
- **iii.** Execute an integrated monitoring and assessment program pursuant to Attachment E – MRP, Part IV to determine progress towards achieving applicable limitations and/or action levels in Attachment G, and
- **iv.** Modify strategies, control measures, and BMPs as necessary based on analysis of monitoring data collected pursuant to the MRP to ensure that applicable water quality-based effluent limitations and receiving water limitations and other milestones set forth in the Watershed Management Program are achieved in the required timeframes.
- **v.** Provide appropriate opportunity for meaningful stakeholder input in the development of the Watershed Management Programs and enhanced Watershed Management Programs. Compliance with this provision may be satisfied by the continued participation of the City of Long Beach in the TAC formed under the LA County MS4 Permit (Order R4-2012-0175).

g. The City of Long Beach may elect to collaborate with other MS4 permittees on the development of an enhanced watershed management program (EWMP). An EWMP is one that comprehensively evaluates opportunities, within the City of Long Beach's and other participating permittees' collective jurisdictional area in a Watershed Management Area, for collaboration with partners on multi-benefit regional projects that, wherever feasible, retain (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others. In drainage areas within the EWMP area where retention of the 85th percentile, 24-hour storm event is not feasible, the EWMP shall include a Reasonable Assurance Analysis to demonstrate that applicable water quality based effluent limitations and receiving water limitations shall be achieved through implementation of other watershed control measures. An EWMP shall:

- **i.** Be consistent with all applicable provisions in Part VII.C (Watershed Management Programs);
- **ii.** Incorporate applicable State agency input on priority setting and other key implementation issues;

iii. Demonstrate that it will result in meeting water quality standards and other CWA obligations by utilizing provisions in the CWA and its implementing regulations, policies and guidance;

iv. Include multi-benefit regional projects to ensure that MS4 discharges achieve compliance with all final WQBELs set forth in Part VIII and do not cause or contribute to exceedances of receiving water limitations in Part VI.A by retaining through infiltration or capture and reuse the storm water volume from the 85th percentile, 24-hour storm for the drainage areas tributary to the multi-benefit regional projects;

v. In drainage areas where retention of the storm water volume from the 85th percentile, 24-hour event is not technically feasible, include other watershed control measures to ensure that MS4 discharges achieve compliance with all interim and final WQBELs set forth in Part VIII with compliance deadlines occurring after approval of a EWMP and to ensure that MS4 discharges do not cause or contribute to exceedances of receiving water limitations in Part VI.A;

vi. Maximize the effectiveness of funds through analysis of alternatives and the selection and sequencing of actions needed to address human health and water quality related challenges and non-compliance;

vii. Incorporate effective innovative technologies, approaches and practices, including green infrastructure;

viii. Ensure that existing requirements to comply with technology-based effluent limitations and core requirements (e.g., including elimination of non-storm water discharges of pollutants through the MS4, and controls to reduce the discharge of pollutants in storm water to the maximum extent practicable) are not delayed;

ix. Ensure that a financial strategy is in place.

2. **Compliance with Receiving Water Limitations Not Otherwise Addressed by a TMDL through a WMP or EWMP**

   a. For receiving water limitations in Part VI.A associated with water body-pollutant combinations not addressed through a TMDL, but which the City of Long Beach elects to address through a WMP or EWMP as set forth in this Part VII.C (Watershed Management Programs), the City of Long Beach shall comply as follows:

   b. **For pollutants that are in the same class[14] as those addressed in a TMDL for the watershed and for which the water body is identified as impaired on the State's Clean Water Act Section 303(d) List as of the effective date of this Order:**

      i. The City of Long Beach shall demonstrate that the watershed control measures to achieve the applicable TMDL provisions identified pursuant to Part VII.C.5.h.iii (TMDL Control Measures) will also adequately address contributions of the pollutant(s) within the same class from MS4 discharges to receiving waters, consistent with the assumptions and requirements of the corresponding TMDL provisions, including interim and final requirements and deadlines for their achievement, such that the MS4

[14] Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the Watershed Management Program for the TMDL.

discharges of the pollutant(s) will not cause or contribute to exceedances of receiving water limitations in Part VI.A.

ii. The City of Long Beach shall include the water body-pollutant combination(s) in the Reasonable Assurance Analysis in Part VII.C.5.h.v.

iii. The City of Long Beach shall identify milestones and dates for their achievement consistent with those in the corresponding TMDL.

c. For pollutants that are not in the same class as those addressed in a TMDL for the watershed, but for which the water body is identified as impaired on the State's Clean Water Act Section 303(d) List as of the effective date of this Order:

i. The City of Long Beach shall assess contributions of the pollutant(s) from MS4 discharges to the receiving waters and sources of the pollutant(s) within the drainage area of the MS4 pursuant to Part VII.C.5.d (Source Assessment).

ii. The City of Long Beach shall identify Watershed Control Measures pursuant to Part VII.C.5.f (Selection of Watershed Control Measures) that will adequately address contributions of the pollutant(s) from MS4 discharges to receiving waters such that the MS4 discharges of the pollutant(s) will not cause or contribute to exceedances of receiving water limitations in Part VI.A.

iii. The City of Long Beach shall include the water body-pollutant in the Reasonable Assurance Analysis in Part VII.C.5.h.v.

iv. The City of Long Beach shall identify enforceable requirements and milestones and dates for their achievement to control MS4 discharges such that they do not cause or contribute to exceedances of receiving water limitations within a timeframe(s) that is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary. The time between dates shall not exceed one year. Milestones shall relate to a specific water quality endpoint (e.g., x% of the MS4 drainage area is meeting the receiving water limitations) and dates shall relate either to taking a specific action or meeting a milestone.

v. Where the final date(s) in (4) is beyond the term of this Order, the following conditions shall apply:

(a) For an EWMP, in drainage areas where retention of (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event will be achieved, the City of Long Beach shall continue to target implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges that are a source of pollutants to receiving waters.

(b) For a WMP and in areas of a EWMP where retention of the volume in (a) is technically infeasible and where the Regional Water Board determines that MS4 discharges cause or contribute to the water quality impairment, the City of Long Beach may initiate development of a stakeholder-proposed TMDL upon approval of the Watershed Management Program or EWMP. For MS4 discharges from these drainage areas to the receiving waters, any

extension of this compliance mechanism beyond the term of this Order shall be consistent with the implementation schedule in a TMDL for the waterbody pollutant combination(s) adopted by the Regional Water Board.

d. For pollutants for which there are exceedances of receiving water limitations in Part VIII, but for which the water body is not identified as impaired on the State's Clean Water Act Section 303(d) List as of the effective date of this Order:

i. Upon an exceedance of a receiving water limitation, based on data collected pursuant to the MRP and approved IMPs and CIMPs, the City of Long Beach shall assess contributions of the pollutant(s) from MS4 discharges to the receiving waters and sources of the pollutant(s) within the drainage area of the MS4 pursuant to Part VI.A.3.

ii. If MS4 discharges are identified as a source of the pollutant(s) that has caused or contributed to, or has the potential to cause or contribute to, the exceedance(s) of receiving water limitations in Part VI.A, the City of Long Beach shall address contributions of the pollutant(s) from MS4 discharges through modifications to the WMP or EWMP pursuant to Part VII.C.8.

iii. In a modified WMP or EWMP, the City of Long Beach shall identify watershed control measures pursuant to Part VII.C.5.f that will adequately address contributions of the pollutant(s) from MS4 discharges to receiving waters such that the MS4 discharges of the pollutant(s) will not cause or contribute to exceedances of receiving water limitations in Part VI.A.

iv. The City of Long Beach shall modify the Reasonable Assurance Analysis pursuant to Part VII.C.5.h.v to address the pollutant(s).

v. The City of Long Beach shall identify enforceable requirements and milestones and dates for their achievement to control MS4 discharges such that they do not cause or contribute to exceedances of receiving water limitations within a timeframe(s) that is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary. The time between dates shall not exceed one year. Milestones shall relate to a specific water quality endpoint (e.g., x% of the MS4 drainage area is meeting the receiving water limitations) and dates shall relate either to taking a specific action or meeting a milestone.

vi. Where the final date(s) in (5) is beyond the term of this Order, the following conditions shall apply:

(a) For an EWMP, in drainage areas where retention of (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event will be achieved, the City of Long Beach shall continue to target implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges that are a source of pollutants to receiving waters.

(b) For a WMP and in areas of a EWMP where retention of the volume in (a) is technically infeasible, for newly identified exceedances of receiving water limitations, the City of Long Beach may request that the Regional Water Board approve a modification to its WMP or EWMP to include these additional water body-pollutant combinations.

e. The City of Long Beach's full compliance with all requirements and dates for their achievement in an approved Watershed Management Program or EWMP shall constitute its compliance with the receiving water limitations provisions in Part VI.A of this Order for the specific water body-pollutant combinations addressed by an approved Watershed Management Program or EWMP.

f. If the City of Long Beach fails to meet any requirement or date for its achievement in an approved Watershed Management Program or EWMP, the City of Long Beach shall be subject to the provisions of Part VI.A for the waterbody-pollutant combination(s) that were to be addressed by the requirement.

g. Upon notification of the City of Long Beach's intent to develop a WMP or EWMP and prior to approval of its WMP or EWMP, the City of Long Beach's full compliance with all of the following requirements shall constitute the City of Long Beach's compliance with the receiving water limitations provisions in Part VI.A not otherwise addressed by a TMDL, if all the following requirements are met:

   i. Provides timely notice of its intent to develop a WMP or EWMP,
   ii. Meets all interim and final deadlines for development of a WMP or EWMP,
   iii. For the area to be covered by the WMP or EWMP, targets implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges of pollutants through the MS4 to receiving waters, to address known contributions of pollutants from MS4 discharges that cause or contribute to exceedances of receiving water limitations, and
   iv. Receives final approval of its WMP or EWMP within the applicable timeframe in Table 8.

3. **Compliance with Receiving Water Limitations Addressed by a TMDL through a WMP or EWMP**

   a. The City of Long Beach's full compliance with all requirements and dates for their achievement in an approved Watershed Management Program or EWMP shall constitute the City of Long Beach's compliance with provisions pertaining to applicable interim water quality based effluent limitations and interim receiving water limitations in Part VIII for the pollutant(s) addressed by the approved Watershed Management Program or EWMP.

   b. Upon notification of the City of Long Beach's intent to develop a WMP or EWMP and prior to approval of its WMP or EWMP, the City of Long Beach's full compliance with all of the following requirements shall constitute the City of Long Beach's compliance with the receiving water limitations provisions in Part VI.A if all the following requirements are met:

      i. Provides timely notice of its intent to develop a WMP or EWMP,
      ii. Meets all interim and final deadlines for development of a WMP or EWMP,
      iii. For the area to be covered by the WMP or EWMP, targets implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges of pollutants through the MS4 to receiving waters, to address known contributions of pollutants from MS4 discharges that cause or contribute to exceedances of receiving water limitations, and
      iv. Receives final approval of its WMP or EWMP within the applicable timeframe in Table 8.

c. Subdivision b above does not apply to receiving water limitations corresponding to final compliance deadlines pursuant to TMDL provisions in Part VIII that have passed or will occur prior to approval of a WMP or EWMP.

4. **Process**

   a. **Timelines for Implementation**

   Implementation of the following requirements shall occur per the schedule specified in Table 8.

Table 8. Watershed Management Program Implementation Requirements

Part	Provision	Due Date
VII.C.4.b	Notify Regional Water Board of intent to develop WMP or EWMP and request submittal date for draft program plan	3 months after Order effective date
VII.C.4.c	If electing to develop WMP with other Los Angeles County MS4 Permittees, submit draft plan to Los Angeles Regional Board	June 28, 2014
VII.C	If electing to develop an individual WMP, submit draft plan to Los Angeles Regional Board If electing to collaborate on an enhanced WMP that meets the requirements of Part VII.C.3.viii, submit draft plan to Los Angeles Regional Board	1 year after Order effective date By June 28, 2014 provide final work plan for development of enhanced WMP By June 28, 2015 submit draft plan
VII.C	Comments provided to Discharger by Regional Water Board	4 months after submittal of draft plan
VII.C	Submit final plan to Regional Water Board	3 months after receipt of Regional Water Board comments on draft plan
VII.C	Approval or denial of final plan by Regional Water Board or by the Executive Officer on behalf of the Regional Water Board	3 months after submittal of final plan
VII.C	Begin implementation of Watershed Management Program or EWMP	Upon approval of final plan
VII.C	Comprehensive evaluation of Watershed Management Program or EWMP and submittal of modifications to plan	Every two years from date of approval

b. The City of Long Beach must notify the Regional Water Board no later than three months after the effective date of this Order of the decision to develop a WMP or EWMP.

i. Such notification shall specify if the City of Long Beach is requesting a June 28, 2014 submittal date for the draft WMP or if the City of Long Beach is requesting a June 28, 2014/June 28, 2015 submittal date for the draft EWMP.

ii. As part of the notice of intent to develop a WMP or EWMP, the City of Long Beach shall identify all applicable interim and final WQBELs and receiving water limitations pursuant to Part VIII with compliance deadlines occurring prior to approval of a WMP or EWMP. The City of Long Beach shall identify watershed control measures from existing TMDL implementation plans where such plans have been developed, that will be implemented concurrently with the development of a WMP or EWMP to ensure that MS4 discharges achieve compliance with applicable interim and final trash WQBELs and all other final WQBELs and receiving water limitations set forth in Part VIII.F and the applicable attachment(s) by the applicable compliance deadlines occurring prior to approval of a WMP or EWMP.

iii. As part of the notification, the City of Long Beach, if electing to develop an EWMP, shall submit the following in addition to the requirements of Part VII.C.4.b.i-ii:

(1) Plan concept and geographical scope,

(2) Cost estimate for plan development,

(3) Executed MOU/agreement among participating Permittees to fund plan development.

(4) Interim milestones for plan development and deadlines for their achievement,

(5) Identification of, and commitment to fully implement one structural BMP or a suite of BMPs at a scale that provides meaningful water quality improvement within each watershed covered by the plan no later than June 28, 2015 in addition to watershed control measures to be implemented pursuant to Part VII.C.4.e. The structural BMP or suite of BMPs shall be subject to approval by the Regional Water Board Executive Officer, and

(6) Documentation that the requirements in Part VII.C.4.d have been met.

c. If the City of Long Beach elects to develop a WMP, the City of Long Beach must submit a draft of such plan to the Regional Water Board as follows:

i. If the City of Long Beach elects to collaborate with other Permittees on the development of a WMP, the City of Long Beach shall submit the draft WMP no later than June 28, 2014.

ii. If the City of Long Beach elects to develop an individual WMP, the City of Long Beach shall submit the draft WMP no later than 12 months after the effective date of this Order.

d. If the City of Long Beach elects to collaborate on the development of an EWMP, the City of Long Beach shall submit the work plan for development of the EWMP no later than June 28, 2014, and shall submit the draft program no later than June 28, 2015 if the following conditions are met in greater than 50% of the land area in the watershed:

i. Demonstrate there are low impact development (LID) ordinances in place and/or draft LID ordinance(s) prepared, which meet the requirements of this Order's Planning and Land Development Program. Draft LID ordinances must be adopted no later than June 28, 2015, and

ii. Demonstrate there are green streets policies in place and/or draft policy(ies) prepared, which specify the use of green street strategies for transportation

corridors. Draft green streets policies must be adopted no later than June 28, 2015.

iii. Submit the draft and/or effective LID ordinances and green streets policies with the notification of intent to develop an EWMP and submit all final effective LID ordinances and green streets policies with the draft EWMP as demonstration that Parts VII.C.4.d.i-ii have been met in greater than 50% of the watershed area covered by the EWMP.

e. Until the Regional Water Board or the Executive Officer on behalf of the Regional Water Board approves the WMP or EWMP, the City of Long Beach, if electing to develop a WMP or EWMP shall:

i. Continue to implement watershed control measures in the existing storm water management program, including actions within each of the six categories of minimum control measures consistent with 40 CFR section 122.26(d)(2)(iv),

ii. Continue to implement watershed control measures to eliminate non-storm water discharges through the MS4 that are a source of pollutants to receiving waters consistent with CWA section 402(p)(3)(B)(ii), and

iii. Implement watershed control measures from existing TMDL implementation plans, where such plans have been developed, to ensure that MS4 discharges achieve compliance with interim and final trash WQBELs and all other final WQBELs and receiving water limitations pursuant to Part VIII by the applicable compliance deadlines occurring prior to approval of a WMP or EWMP.

f. If the City of Long Beach does not elect to develop a WMP or EWMP, or does not have an approved WMP or EWMP within the applicable timeframe specified in Table 8, the City shall be subject to the baseline requirements in Part VII.D-M and shall demonstrate compliance with receiving water limitations pursuant to Part VI.A and with applicable interim water quality-based effluent limitations in Part VIII.E.

5. **Program Development**

a. **Water Quality Characterization** - Each plan shall include an evaluation of existing water quality conditions, including characterization of storm water and non-storm water discharges from the MS4 and receiving water quality, to support identification and prioritization/sequencing of management actions.

b. **Identification of Water Quality Priorities** - The City of Long Beach shall identify the water quality priorities within each WMA that will be addressed by the Watershed Management Program. At a minimum, these priorities shall include achieving applicable water quality-based effluent limitations and/or receiving water limitations established pursuant to TMDLs, as set forth in Part VIII of this Order.

c. **Water Body-Pollutant Classification** - On the basis of the evaluation of existing water quality conditions, water body-pollutant combinations shall be classified into one of the following three categories:

i. Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Parts VI and VIII. of this Order.

ii. Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List

(State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.

iii. Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.

d. **Source Assessment** - Utilizing existing information, potential sources within the watershed for the water body-pollutant combinations in Categories 1 - 3 shall be identified.

i. The City of Long Beach shall identify known and suspected storm water and non-storm water pollutant sources in discharges to the MS4 and from the MS4 to receiving waters and any other stressors related to MS4 discharges causing or contributing to the water quality priorities. The identification of known and suspected sources of the highest water quality priorities shall consider the following:

(1) Review of available data, including but not limited to:

(a) Findings from the City of Long Beach's Illicit Connections and Illicit Discharge Elimination Programs;

(b) Findings from the City of Long Beach's Industrial/Commercial Facilities Programs;

(c) Findings from the City of Long Beach's Development Construction Programs;

(d) Findings from the City of Long Beach's Public Agency Activities Programs;

(2) TMDL source investigations;

(3) Watershed model results;

(4) Findings from the City of Long Beach's monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring; and

(5) Any other pertinent data, information, or studies related to pollutant sources and conditions that contribute to the highest water quality priorities.

ii. Locations of the City of Long Beach's MS4, including, at a minimum, all MS4 major outfalls and major structural controls for storm water and non-storm water that discharge to receiving waters.

iii. Other known and suspected sources of pollutants in non-storm water or storm water discharges from the MS4 to receiving waters within the WMA.

e. **Prioritization** - Based on the findings of the source assessment, the issues within each watershed shall be prioritized and sequenced. Watershed priorities shall include:

i. **TMDLs**

(1) Controlling pollutants for which there are water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the permit term, or TMDL compliance deadlines that have already passed and limitations have not been achieved.

(2) Controlling pollutants for which there are water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the term of this Order.

(3) Progress toward controlling pollutants for which there are water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines beyond the term of this Order.

ii. **Other Receiving Water Considerations**

(1) Controlling pollutants for which data indicate impairment pursuant to the State's Listing Policy and the findings from the source assessment implicates discharges from the MS4.

(2) Controlling pollutants for which data indicate exceedances of receiving water limitations in the receiving water within the last five years and the findings from the source assessment implicates discharges from the MS4.

f. **Selection of Watershed Control Measures** - The City of Long Beach shall identify strategies, control measures, and BMPs to implement through their individual storm water management programs, and collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities. The objectives of the Watershed Control Measures shall include:

i. Prevent or eliminate non-storm water discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.

ii. Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.

iii. Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations.

g. **Watershed Control Measures may include:**

i. Structural and/or non-structural controls and operation and maintenance procedures that are designed to achieve applicable water quality-based effluent limitations and receiving water limitations in Part VIII;

ii. Retrofitting areas of existing development known or suspected to contribute to the highest water quality priorities with regional or sub-regional controls or management measures; and

iii. Stream and/or habitat rehabilitation or restoration projects where stream and/or habitat rehabilitation or restoration are necessary for, or will contribute to demonstrable improvements in the physical, chemical, and biological receiving water conditions and restoration and/or protection of water quality standards in receiving waters.

h. **Watershed Management Program Provisions** - The following provisions of this Order shall be incorporated as part of the Watershed Management Program:

i. **Minimum Control Measures** - The City of Long Beach shall assess the minimum control measures (MCMs) as defined in Part VII.D of this Order to identify opportunities for focusing resources on the high priority issues in each watershed. For each of the following minimum control measures, the City of Long Beach shall identify potential modifications that will address watershed priorities:

- Development Construction Program
- Industrial/Commercial Facilities Program
- Illicit Connection and Illicit Discharges Detection and Elimination Program
- Public Agency Activities Program
- Public Information and Participation Program

(1) At a minimum, the Watershed Management Program shall include management programs consistent with 40 CFR Section 122.26(d)(2)(iv)(A)-(D)

(2) If the City of Long Beach(s) elects to eliminate a control measure identified in Part VII.D because that specific control measure is not applicable to the City of Long Beach, the City of Long Beach shall provide a justification for its elimination. The Planning and Land Development Program is not eligible for modification or elimination, except thorugh the "Local Ordinance Equivalence" provisions of Part VII.J.5.

(3) Such customized actions, once approved as part of the Watershed Management Program, shall replace in part or in whole the requirements in Part VII.D.

ii. **Non-Storm Water Control Measures -** Where the City of Long Beach identifies non-storm water discharges from the MS4 as a source of pollutants that cause or contribute to exceedance of receiving water limitations, the Watershed Control Measures shall include strategies, control measures, and/or BMPs that must be implemented to effectively eliminate the source of pollutants consistent with Parts IV.B. and VII.L. These may include measures to prohibit the non-storm water discharge to the MS4, additional BMPs to reduce pollutants in the non-storm water discharge or conveyed by the non-storm water discharge, diversion to a sanitary sewer for treatment, or strategies to require the non-storm water discharge to be separately regulated under a general NPDES permit.

iii. **TMDL Control Measures -** The City of Long Beach shall compile control measures that have been identified in TMDLs and corresponding implementation plans. The City of Long Beach shall identify those control measures to be modified, if any, to most effectively address TMDL requirements within the watershed. If not sufficiently identified in previous documents, or if implementation plans have not yet been developed (e.g., USEPA established TMDLs), the City of Long Beach shall evaluate and identify control measures to achieve water quality-based effluent limitations and/or receiving water limitations established in this Order pursuant to these TMDLs.

(1) TMDL control measures shall include where necessary control measures to address both storm water and non-storm water discharges from the MS4.

(2) TMDL control measures may include baseline or customized activities covered under the general MCM categories in Part VII.D as well as BMPs and other control measures covered under the non-storm water discharge provisions of Parts IV.B of this Order.

(3) The WMP shall include, at a minimum, those actions that will be implemented during the permit term to achieve interim and/or final water quality-based effluent limitations and/or receiving water limitations with compliance deadlines within the permit term.

iv. **Each plan shall include the following components:**

(1) Identification of specific structural controls and non-structural best management practices, including operational source control and pollution prevention, and any other actions or programs to achieve all water quality-based effluent limitations and receiving water limitations contained in Part VIII to which the City of Long Beach(s) is subject;

(2) For each structural control and non-structural best management practice, the number, type, and location(s) and/or frequency of implementation;
(3) For any pollution prevention measures, the nature, scope, and timing of implementation;
(4) For each structural control and non-structural best management practice, interim milestones and dates for achievement to ensure that TMDL compliance deadlines will be met; and
(5) The plan shall clearly identify the responsibilities of the City of Long Beach for implementation of watershed control measures.

v. **Reasonable Assurance Analysis** - The City of Long Beach shall conduct a Reasonable Assurance Analysis for each water body-pollutant combination addressed by the Watershed Management Program. A Reasonable Assurance Analysis (RAA) shall be quantitative and performed using a peer-reviewed model in the public domain. Models to be considered for the RAA, without exclusion, are the Watershed Management Modeling System (WMMS) and the Structural BMP Prioritization and Analysis Tool (SBPAT). The RAA shall commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant loading data, establishment of quality assurance/quality control (QA/QC) criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis. Data on performance of watershed control measures needed as model input shall be drawn only from peer-reviewed sources. These data shall be statistically analyzed to determine the best estimate of performance and the confidence limits on that estimate for the pollutants to be evaluated. The objective of the RAA shall be to demonstrate the ability of Watershed Management Programs and EWMPs to ensure the City of Long Beach's MS4 discharges achieve applicable water quality based effluent limitations and do not cause or contribute to exceedances of receiving water limitations.

(1) The City of Long Beach shall demonstrate using the RAA that the activities and control measures identified in the Watershed Control Measures will achieve applicable water quality-based effluent limitations and/or receiving water limitations with compliance deadlines during the permit term.
(2) Where the TMDL Provisions in Part VIII do not include interim or final water quality-based effluent limitations and/or receiving water limitations with compliance deadlines during the permit term, the City of Long Beach shall identify interim milestones and dates for their achievement to ensure adequate progress toward achieving interim and final water quality-based effluent limitations and/or receiving water limitations with deadlines beyond the permit term.
(3) For water body-pollutant combinations not addressed by TMDLs, the City of Long Beach shall demonstrate using the RAA that the activities and control measures identified in the Watershed Control Measures will achieve applicable receiving water limitations as soon as possible.

vi. **Legal Authority** - The City of Long Beach shall demonstrate the necessary legal authority to implement the Watershed Control Measures identified in the plan, or that other legal authority exists to compel implementation of the Watershed Control Measures.

vii. **Compliance Schedules** - The City of Long Beach shall incorporate compliance schedules in Part VIII into the plan and, where necessary develop interim milestones and dates for their achievement. Compliance schedules and interim milestones and dates for their achievement shall be used to measure progress towards addressing the highest water quality priorities and achieving applicable water quality-based effluent limitations and/or receiving water limitations.

(1) Schedules must be adequate for measuring progress on a watershed scale once every two years.

(2) Schedules must be developed for both the strategies, control measures and BMPs implemented by the City of Long Beach within its jurisdiction and for those that will be implemented by multiple entities on a watershed scale.

(3) Schedules shall incorporate the following:

(a) Compliance deadlines occurring within the permit term for all applicable interim and/or final water quality-based effluent limitations and/or receiving water limitations in Parts VI and VIII of this Order,

(b) Interim milestones and dates for their achievement within the permit term for any applicable final water quality-based effluent limitation and/or receiving water limitation in Parts VI and VIII, where deadlines within the permit term are not otherwise specified.

(c) For watershed priorities related to addressing exceedances of receiving water limitations in Part VI.A and not otherwise addressed by Part VIII:

a. Milestones based on measureable criteria or indicators, to be achieved in the receiving waters and/or MS4 discharges,

b. A schedule with dates for achieving the milestones, and

c. A final date for achieving the receiving water limitations as soon as possible.

d. The milestones and implementation schedule in (a)-(c) fulfill the requirements in Part VI.A.3.a to prepare an Integrated Monitoring Compliance Report.

6. Watershed Management Program Implementation

The City of Long Beach shall begin implementing the Watershed Management Program or EWMP immediately upon approval of the plan by the Regional Water Board or the Executive Officer on behalf of the Regional Water Board.

The City of Long Beach may request an extension of only the deadlines for achieving interim milestones in Part VII.C.5.h.vii.(3)(b)-(c) of this Order. The City of Long Beach shall provide a written request at least 90 days prior to the deadline and shall include the justification for the extension. Extensions shall be subject to approval by the Regional Water Board Executive Officer.

7. Integrated Watershed Monitoring and Assessment

The City of Long Beach shall develop an integrated monitoring program as set forth in Part IV of the MRP (Attachment E) or implement a customized monitoring program with the primary objective of allowing for the customization of the outfall monitoring program (Parts VIII and IX) in conjunction with an approved Watershed Management Program or EWMP, as defined below. Each monitoring program shall

assess progress toward achieving the water quality-based effluent limitations and/or receiving water limitations per the compliance schedules, and progress toward addressing the water quality priorities for each WMA. The customized monitoring program shall be submitted as part of the Watershed Management Program, or where the City of Long Beach elects to develop an EWMP, shall be submitted by June 28, 2014. If pursuing a customized monitoring program, the City of Long Beach shall provide sufficient justification for each element of the program that differs from the monitoring program requirements as set forth in Attachment E. Monitoring programs shall be subject to approval by the Executive Officer following a public comment period. The customized monitoring program shall be designed to address the Primary Objectives detailed in Attachment E, Part II.A and shall include the following program elements:

a. Receiving Water Monitoring
b. Storm Water Outfall Monitoring
c. Non-Storm Water Outfall Monitoring
d. New Development/Re-Development Effectiveness Tracking
e. Regional Studies

8. Adaptive Management Process

a. Watershed Management Program Adaptive Management Process
In Each WMA affected, the City of Long Beach shall implement an adaptive management process, every two years from the date of program approval, adapting the Watershed Management Program or EWMP to become more effective, based on, but not limited to a consideration of the following:

i. Progress toward achieving interim and/or final water quality-based effluent limitations and/or receiving water limitations in Part VIII, according to established compliance schedules;
ii. Progress toward achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data;
iii. Achievement of interim milestones;
iv. Re-evaluation of the water quality priorities identified for the WMA based on more recent water quality data for discharges from the MS4 and the receiving water(s) and a reassessment of sources of pollutants in MS4 discharges;
v. Availability of new information and data from sources other than the City of Long Beach' monitoring program(s) within the WMA that informs the effectiveness of the actions implemented by the City of Long Beach;
vi. Regional Water Board recommendations; and
vii. Recommendations for modifications to the Watershed Management Program solicited through a public participation process.

b. Based on the results of the adaptive management process, the City of Long Beach shall report any modifications, including where appropriate new compliance deadlines and interim milestones, with the exception of those compliance deadlines established in a TMDL, necessary to improve the effectiveness of the Watershed Management Program or EWMP in the Annual Report, as required pursuant to Part XVIII.A.6 of the MRP (Attachment E), and as

part of the Report of Waste Discharge (ROWD) required pursuant to Part II.B of Attachment D – Standard Provisions.

i. The adaptive management process fulfills the requirements in Part VI.A.4 to address continuing exceedances of receiving water limitations.

c. The City of Long Beach shall implement any modifications to the Watershed Management Program or EWMP upon approval by the Regional Water Board Executive Officer or within 60 days of submittal if the Regional Water Board Executive Officer expresses no objections.

D. Storm Water Management Program Minimum Control Measures

1. General Requirements

i. The City of Long Beach shall implement the requirements in Parts VII.F-M below, or may in lieu of the requirements in Parts VII.F-M (with the exception of Part VII.J) implement customized actions within each of these general categories of control measures as set forth in an approved Watershed Management Program per Part VII.C. Implementation shall be consistent with the requirements of 40 CFR section 122.26(d)(2)(iv).

ii. Timelines for Implementation
Unless otherwise noted in Part VII.C, if the City of Long Beach does not elect to develop a Watershed Management Program or EWMP per Part VII.C, then the City of Long Beach shall implement the requirements contained in Part VII.F-M within 6 months after the effective date of this Order in the areas not addressed by a WMP/EWMP. In the interim, the City of Long Beach shall continue to implement its existing storm water management program, including actions within each of the six categories of minimum control measures consistent with 40 CFR Section 122.26(d)(2)(iv).

iii. If the City of Long Beach elects to develop a Watershed Management Program or EWMP, the City of Long Beach shall continue to implement its existing storm water management program, including actions within each of the six categories of minimum control measures consistent with 40 CFR Section 122.26(d)(2)(iv) until the Watershed Management Program or EWMP is approved by the Los Angeles Regional Board Executive Officer.

2. Progressive Enforcement and Interagency Coordination

i. The City of Long Beach shall develop and implement a Progressive Enforcement Policy to ensure that (1) regulated Industrial/Commercial facilities, (2) construction sites, (3) development and redevelopment sites with post-construction controls, and (4) illicit discharges are each brought into compliance with all storm water and non-storm water requirements within a reasonable time period as specified below:

(1) Follow-up Inspections

In the event that the City of Long Beach determines, based on an inspection or illicit discharge investigation conducted, that a facility or site operator has failed to adequately implement all necessary BMPs, the City of Long Beach shall take progressive enforcement actions which, at a minimum, shall include a follow-up inspection within 4 weeks from the date of the initial inspection and/or investigation.

(2) Enforcement Action

In the event that the City of Long Beach determines that a facility or site operator has failed to adequately implement BMPs after a follow-up inspection, the City of Long Beach shall take enforcement action as established through authority in its municipal code and ordinances, through the judicial system, or refer the case to the Regional Water Board, per the Interagency Coordination provisions below.

(3) Records Retention

The City of Long Beach shall maintain records, per their existing record retention policies, and make them available on request to the Regional Water Board, including inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating a good faith effort to bring facilities into compliance.

(4) Referral of Violations of Municipal Ordinances and California Water Code § 13260

The City of Long Beach may refer a violation(s) of its municipal storm water ordinances and/or California Water Code Section 13260 by Industrial and Commercial facilities and construction site operators to the Regional Water Board provided that the City of Long Beach has made a good faith effort of applying its Progressive Enforcement Policy to achieve compliance with its own ordinances. At a minimum, the City of Long Beach's good faith effort must be documented with:

(a) Two follow-up inspections, and
(b) Two warning letters or notices of violation.
(c) Referral of Violations of the Industrial and Construction General Permits, including Requirements to File a Notice of Intent or No Exposure Certification

For those facilities or site operators in violation of municipal storm water ordinances and subject to the Industrial and/or Construction General Permits, the City of Long Beach may escalate referral of such violations to the Regional Water Board (promptly via telephone or electronically) after one inspection and one written notice of violation (copied to the Regional Water Board) to the facility or site operator regarding the violation. In making such referrals, the City of Long Beach shall include, at a minimum, the following documentation:

(a) Name of the facility or site,
(b) Operator of the facility or site,
(c) Owner of the facility or site,
(d) WDID Number (if applicable),
(e) Records of communication with the facility/site operator regarding the violation, which shall include at least one inspection report,
(f) The written notice of violation (copied to the Regional Water Board),

(g) For industrial sites, the industrial activity being conducted at the facility that is subject to the Industrial General Permit, and

(h) For construction sites the documentation shall include site acreage and risk factor rating.

ii. Investigation of Complaints Transmitted by the Regional Water Board Staff

The City of Long Beach shall initiate, within one business day,[15] investigation of complaints from facilities within its jurisdiction. The initial investigation shall include, at a minimum, a limited inspection of the facility to confirm validity of the complaint and to determine if the facility is in compliance with municipal storm water ordinances and, if necessary, to oversee corrective action.

(1) Assistance with Regional Water Board Enforcement Actions

As directed by the Regional Water Board Executive Officer, the City of Long Beach shall assist Regional Water Board enforcement actions by:

(a) Assisting in identification of current owners, operators, and lessees of properties and sites.

(b) Providing staff, when available, for joint inspections with Regional Water Board inspectors.

(c) Appearing to testify as witnesses in Regional Water Board enforcement hearings.

(d) Providing copies of inspection reports and documentation demonstrating application of its Progressive Enforcement Policy.

E. Modifications/Revisions

1. The City of Long Beach shall modify its storm water management programs, protocols, practices, and municipal codes to make them consistent with the requirements in this Order.

F. Public Information and Participation Program

1. General

The City of Long Beach shall develop and implement a public information and participation program (PIPP) with the following the objectives:

i. To measurably increase the knowledge of the target audiences about the MS4, the adverse impacts of storm water pollution on receiving waters and potential solutions to mitigate the impacts.

ii. To measurably change the waste disposal and storm water pollution generation behavior of target audiences by developing and encouraging the implementation of appropriate alternatives.

iii. To involve and engage a diversity of socio-economic groups and ethnic communities in its jurisdiction to participate in mitigating the impacts of storm water pollution.

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[15] The Discharger may comply with the Permit by taking initial steps (such as logging, prioritizing, and tasking) to "initiate" the investigation within that one business day. However, the Los Angeles Regional Board would expect the initial investigation, including a site visit, would occur within four business days.

2. **PIPP Implementation -** The City of Long Beach shall develop and implement the PIPP using one or more of the following approaches:

   i. By participating in a County-wide PIPP,

   ii. By participating in one or more Watershed Group sponsored PIPPs, and/or

   iii. Or individually within its jurisdiction.

   iv. If the City of Long Beach participates in a County-wide or Watershed Group PIPP, the City of Long Beach shall provide the contact information for their appropriate staff responsible for storm water public education activities to the designated PIPP coordinator and contact information changes no later than 30 days after a change occurs.

3. **Public Participation**

   i. The City of Long Beach, whether participating in a County-wide or watershed group sponsored PIPP, or acting individually, shall provide a means for public reporting of clogged catch basin inlets and illicit discharges/dumping, faded or missing catch basin labels, and general storm water and non-storm water pollution prevention information.

      (1) The City of Long Beach shall continue to operate the Storm Water Pollution Prevention Hotline and Reporting of Illegal Dumping to Storm Drains: (562) 570-DUMP and the website www.lbstormwater.org

      (2) The City of Long Beach shall include the reporting information, updated when necessary, in public information, and the government pages of the telephone book, as they are developed or published.

      (3) The City of Long Beach shall identify staff or departments who will serve as the contact person(s) and shall make this information available on its website.

      (4) The City of Long Beach is responsible for providing current, updated hotline contact information to the general public within its jurisdiction.

   ii. The City of Long Beach shall organize events targeted to residents and population subgroups to educate and involve the community in storm water and non-storm water pollution prevention and clean-up (e.g., education seminars, clean-ups, and community catch basin stenciling).

4. **Residential Outreach Program**

   i. Working in conjunction with a County-wide or Watershed Group sponsored PIPP or individually, the City of Long Beach shall implement the following activities:

      (1) Conduct storm water pollution prevention public service announcements and advertising campaigns

      (2) Public education materials shall include but are not limited to information on the proper handling (i.e., disposal, storage and/or use) of:

         (a) Vehicle waste fluids

         (b) Household waste materials (i.e., trash and household hazardous waste, including personal care products and pharmaceuticals)

         (c) Construction waste materials

(d) Pesticides and fertilizers (including integrated pest management practices [IPM] to promote reduced use of pesticides)

(e) Green waste (including lawn clippings and leaves)

(f) Animal wastes

(3) Distribute activity specific storm water pollution prevention public education materials at, but not limited to, the following points of purchase:

(a) Automotive parts stores

(b) Home improvement centers / lumber yards / hardware stores/paint stores

(c) Landscaping / gardening centers

(d) Pet shops / feed stores

(4) Maintain storm water websites or provide links to storm water websites via the City of Long Beach's website, which shall include educational material and opportunities for the public to participate in storm water pollution prevention and clean-up activities listed in Part VII.G.4.

(5) Provide independent, parochial, and public schools within in the City of Long Beach's jurisdiction with materials to educate school children (K-12) on storm water pollution. Material may include videos, live presentations, and other information. The City of Long Beach is encouraged to work with, or leverage, materials produced by other statewide agencies and associations such as the State Water Board's "Erase the Waste" educational program and the California Environmental Education Interagency Network (CEEIN) to implement this requirement.

(6) When implementing activities in Part VII.F.4.i.(1)-(5), the City of Long Beach shall use effective strategies to educate and involve ethnic communities in storm water pollution prevention through culturally effective methods.

G. Industrial/Commercial Facilities Program

1. General

The City of Long Beach shall implement an Industrial / Commercial Facilities Program that meets the requirements of this Part VII G. The Industrial / Commercial Facilities Program shall be designed to prevent illicit discharges into the MS4 and receiving waters, reduce industrial / commercial discharges of storm water to the MEP, and prevent industrial / commercial discharges from the MS4 from causing or contributing to a violation of receiving water limitations. At a minimum, the Industrial / Commercial Facilities Program shall be implemented in accordance with the requirements listed in this Part VII.G, or as approved in a Watershed Management Program per Part VII.C. The minimum program components shall include the following:

i. Track

ii. Educate

iii. Inspect

iv. Ensure compliance with municipal ordinances at industrial and commercial facilities that are critical sources of pollutants in storm water.

2. Tracking Critical Industrial/Commercial Sources

i. The City of Long Beach shall maintain an updated watershed-based inventory or database containing the latitude / longitude coordinates of all industrial and commercial facilities within its jurisdiction that are critical sources of storm water pollution. The inventory or database shall be maintained in electronic format and incorporation of facility information into a Geographical Information System (GIS) is recommended. Critical Sources to be tracked are summarized below:

(1) Commercial Facilities

(a) Restaurants

(b) Automotive service facilities (including those located at automotive dealerships)

(c) Retail Gasoline Outlets

(d) Nurseries and Nursery Centers (Merchant Wholesalers, Nondurable Goods, and Retail Trade)

(2) USEPA "Phase I" Facilities [as specified in 40 CFR §122.26(b)(14)(i)-(xi)]

(3) Other federally-mandated facilities [as specified in 40 CFR §122.26(d)(2)(iv)(C)]

(a) Municipal landfills

(b) Hazardous waste treatment, disposal, and recovery facilities

(c) Industrial facilities subject to section 313 "Toxic Release Inventory" reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) [42 U.S.C. § 11023]

(4) All other commercial or industrial facilities that the City of Long Beach determines may contribute a substantial pollutant load to the MS4.

ii. The City of Long Beach shall include the following minimum fields of information for each critical source industrial and commercial facility identified in its watershed-based inventory or database:

(1) Name of facility

(2) Name of owner/ operator and contact information

(3) Address of facility (physical and mailing)

(4) North American Industry Classification System (NAICS) code

(5) Standard Industrial Classification (SIC) code

(6) A narrative description of the activities performed and/or principal products produced

(7) Status of exposure of materials to storm water

(8) Name of receiving water

(9) Identification of whether the facility is tributary to a CWA § 303(d) listed water body segment or water body segment subject to a TMDL, where

the facility generates pollutants for which the water body segment is impaired.

(10) Ability to denote if the facility is known to maintain coverage under the State Water Board's General NPDES Permit for the Discharge of Stormwater Associated with Industrial Activities (Industrial General Permit) or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.

(11) Ability to denote if the facility has filed a No Exposure Certification with the State Water Board.

iii. The City of Long Beach shall update its inventory of critical sources at least annually. The update shall be accomplished through collection of new information obtained through field activities or through other readily available inter- and intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer connection permits, and similar information).

3.Educate Industrial / Commercial Sources

i. At least once during the five-year period of this Order, the City of Long Beach shall notify the owner/operator of each of its inventoried commercial and industrial sites identified in Part VII.G.2 of the BMP requirements applicable to the site/source.

ii. Business Assistance Program

(1) The City of Long Beach shall implement a Business Assistance Program to provide technical information to businesses to facilitate their efforts to reduce the discharge of pollutants in storm water. Assistance shall be targeted to select business sectors or small businesses upon a determination that their activities may be contributing substantial pollutant loads to the MS4 or receiving water. Assistance may include technical guidance and provision of educational materials. The Program may include:

(a) On-site technical assistance, telephone, or e-mail consultation regarding the responsibilities of business to reduce the discharge of pollutants, procedural requirements, and available guidance documents.

(b) Distribution of storm water pollution prevention educational materials to operators of auto repair shops; car wash facilities; restaurants and mobile sources including automobile/equipment repair, washing, or detailing; power washing services; mobile carpet, drape, or upholstery cleaning services; swimming pool, water softener, and spa services; portable sanitary services; and commercial applicators and distributors of pesticides, herbicides and fertilizers, if present.

4.Inspect Critical Commercial Sources

i. Frequency of Mandatory Commercial Facility Inspections

The City of Long Beach shall inspect all commercial facilities identified in Part VII.G.2 twice during the 5-year term of the Order, provided that the first mandatory compliance inspection occurs no later than 2 years after the

effective date of this Order. A minimum interval of 6 months between the first and the second mandatory compliance inspection is required. In addition, the City of Long Beach shall implement the activities outlined in the following subparts.

ii. Scope of Mandatory Commercial Facility Inspections

The City of Long Beach shall inspect all commercial facilities to confirm that storm water and non-storm water BMPs are being effectively implemented in compliance with municipal ordinances. At each facility, inspectors shall verify that the operator is implementing effective source control BMPs for each corresponding activity. The City of Long Beach shall require implementation of additional BMPs where storm water from the MS4 discharges to a significant ecological area (SEA), a water body subject to TMDL provisions in Part VIII, or a CWA § 303(d) listed impaired water body. Likewise, for those BMPs that are not adequately protective of water quality standards, the City of Long Beach may require additional site-specific controls.

5. Inspect Critical Industrial Sources

The City of Long Beach shall conduct industrial facility compliance inspections as specified below.

i. Frequency of Mandatory Industrial Facility Compliance Inspections

(1) Minimum Inspection Frequency

The City of Long Beach shall perform an initial mandatory compliance inspection at all industrial facilities identified in Part VII.G.2 no later than 2 years after the effective date of this Order. After the initial inspection, all facilities that have not filed a No Exposure Certification with the State Water Board are subject to a second mandatory compliance inspection. A minimum interval of 6 months between the first and the second mandatory compliance inspection is required. A facility need not be inspected more than twice during the term of the Order unless subject to an enforcement action as specified in Part VII.I below.

(2) Exclusion of Facilities Previously Inspected by the Regional Water Board.

The City of Long Beach shall review the State Water Board's Storm Water Multiple Application and Report Tracking System (SMARTS) database[16] at defined intervals to determine if an industrial facility has recently been inspected by the Regional Water Board. The first interval shall occur approximately 2 years after the effective date of the Order. The City of Long Beach does not need to inspect the facility if it is determined that the Regional Water Board conducted an inspection of the facility within the prior 24 month period. The second interval shall occur approximately 4 years after the effective date of the Order. Likewise, the City of Long Beach does not need to inspect the facility if it is determined that the Regional Water Board conducted an inspection of the facility within the prior 24 month period.

(3) No Exposure Verification

As a component of the first mandatory inspection, the City of Long Beach shall identify those facilities that have filed a No Exposure Certification

[16] SMARTS is accessible at https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp

with the State Water Board. Approximately 3 to 4 years after the effective date of the Order, the City of Long Beach shall evaluate its inventory of industrial facilities and perform a second mandatory compliance inspection at a minimum of 25% of the facilities identified to have filed a No Exposure Certification. The purpose of this inspection is to verify the continuity of the no exposure status.

(4) Exclusion Based on Watershed Management Program

The City of Long Beach is exempt from the mandatory inspection frequencies listed above if it is implementing industrial inspections in accordance with an approved Watershed Management Program per Part VII.C.

ii. Scope of Mandatory Industrial Facility Inspections

The City of Long Beach shall confirm that each industrial facility:

(1) Has a current Waste Discharge Identification (WDID) number for coverage under the Industrial General Permit, and that a Storm Water Pollution Prevention Plan (SWPPP) is available on-site; *or*

(2) Has applied for, and has received a current No Exposure Certification for facilities subject to this requirement;

(3) Is effectively implementing BMPs in compliance with municipal ordinances. Facilities must implement the source control BMPs identified in Table 9, unless the pollutant generating activity does not occur. The City of Long Beach shall require implementation of additional BMPs where storm water from the MS4 discharges to a water body subject to TMDL Provisions in Part VIII, or a CWA § 303(d) listed impaired water body. Likewise, if the specified BMPs are not adequately protective of water quality standards, the City of Long Beach may require additional site-specific controls. For critical sources that discharge to MS4s that discharge to SEAs, the City of Long Beach shall require operators to implement additional pollutant-specific controls to reduce pollutants in storm water runoff that are causing or contributing to exceedances of water quality standards.

(4) Applicable industrial facilities identified as not having either a current WDID or No Exposure Certification shall be notified that they must obtain coverage under the Industrial General Permit and shall be referred to the Regional Water Board per the progressive enforcement policy procedures identified in Part VII.D.2

6.Source Control BMPs for Commercial and Industrial Facilities

Effective source control BMPs for the activities listed in Table 9 shall be implemented at commercial and industrial facilities, unless the pollutant generating activity does not occur:

Table 9. Source Control BMPs at Commercial and Industrial Facilities

Pollutant-Generating Activity	BMP Narrative Description
Unauthorized Non-Storm water Discharges	Effective elimination of non-storm water discharges
Accidental Spills/ Leaks	Implementation of effective spills/ leaks prevention and response procedures
Vehicle/ Equipment Fueling	Implementation of effective fueling source control devices and practices
Vehicle/ Equipment Cleaning	Implementation of effective equipment/ vehicle cleaning practices and appropriate wash water management practices
Vehicle/ Equipment Repair	Implementation of effective vehicle/ equipment repair practices and source control devices
Outdoor Liquid Storage	Implementation of effective outdoor liquid storage source controls and practices
Outdoor Equipment Operations	Implementation of effective outdoor equipment source control devices and practices
Outdoor Storage of Raw Materials	Implementation of effective source control practices and structural devices
Storage and Handling of Solid Waste	Implementation of effective solid waste storage/ handling practices and appropriate control measures
Building and Grounds Maintenance	Implementation of effective facility maintenance practices
Parking/ Storage Area Maintenance	Implementation of effective parking/ storage area designs and housekeeping/ maintenance practices
Storm water Conveyance System Maintenance Practices	Implementation of proper conveyance system operation and maintenance protocols
Pollutant-Generating Activity	BMP Narrative Description from Regional Water Board Resolution No. 98-08
Sidewalk Washing	Remove trash, debris, and free standing oil/grease spills/leaks (use absorbent material, if necessary) from the area before washing; and Use high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area.
Street Washing	Collect and divert wash water to the sanitary sewer – publically owned treatment works (POTW). Note: POTW approval may be needed.

H. Significant Ecological Areas (SEAs)

See VII.G.5.ii.(3).

I. Progressive Enforcement

The City of Long Beach shall implement its progressive enforcement policy to ensure that Industrial / Commercial facilities are brought into compliance with all storm water requirements within a reasonable time period. See Part VII.D.2 for requirements for the development and implementation of a progressive enforcement policy.

J. Planning and Land Development Program

1. **Purpose** - The City of Long Beach shall implement a planning and land development program pursuant to this Part VII.J for all new development and redevelopment projects subject to this Order to:

   i. Lessen the water quality impacts of development by using smart growth practices such as compact development, directing development towards existing communities via infill or redevelopment, and safeguarding of environmentally sensitive areas.

   ii. Minimize the adverse impacts from storm water runoff on the biological integrity of Natural Drainage Systems and the beneficial uses of water bodies in accordance with requirements under CEQA (Cal. Pub. Resources Code § 21000 et seq.).

   iii. Minimize the percentage of impervious surfaces on land developments by minimizing soil compaction during construction, designing projects to minimize the impervious area footprint, and employing Low Impact Development (LID) design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use.

   iv. Maintain existing riparian buffers and enhance riparian buffers when possible.

   v. Minimize pollutant loadings from impervious surfaces such as roof tops, parking lots, and roadways through the use of properly designed, technically appropriate BMPs (including Source Control BMPs such as good housekeeping practices), LID Strategies, and Treatment Control BMPs.

   vi. Properly select, design and maintain LID and Hydromodification Control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function, and avoid the breeding of vectors[17].

   vii. Prioritize the selection of BMPs to remove storm water pollutants, reduce storm water runoff volume, and beneficially use storm water to support an integrated approach to protecting water quality and managing water resources in the following order of preference:

      (a) On-site infiltration, bioretention and/or rainfall harvest and use.

      (b) On-site biofiltration, off-site ground water replenishment, and/or off-site retrofit.

2. **New Development Projects**

   i. New Development projects subject to conditioning and approval by the City of Long Beach for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:

      (1) Industrial parks 10,000 square feet or more of surface area

      (2) Commercial malls 10,000 square feet or more surface area

      (3) Retail gasoline outlets 5,000 square feet or more of surface area

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[17] Treatment BMPs when designed to drain within 96 hours of the end of rainfall minimize the potential for the breeding of vectors. See California Department of Public Health *Best Management Practices for Mosquito Control in California* (2012) at http://www.westnile.ca.gov/resources.php

(4) Restaurants (SIC 5812) 5,000 square feet or more of surface area

(5) Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces

(6) Street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets[18] (December 2008 EPA-833-F-08-009) to the maximum extent practicable. Street and road construction applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects.

(7) Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area.Projects located in or directly adjacent to, or discharging directly to an Ecological Significant Area (ESA), where the development will:

(a) Discharge storm water runoff that is likely to impact a sensitive biological species or habitat; and

(b) Create 2,500 square feet or more of impervious surface area

(8) Single-family hillside homes. To the extent that the City of Long Beach may lawfully impose conditions, mitigation measures or other requirements on the development or construction of a single-family home in a hillside area as defined in the City's Code and Ordinances, the City of Long Beach shall require that during the construction of a single-family hillside home, the following measures are implemented:

(a) Conserve natural areas

(b) Protect slopes and channels

(c) Provide storm drain system stenciling and signage

(d) Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability

(e) Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.

(9) All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area.

(10) Redevelopment projects in subject categories that meet Redevelopment thresholds identified in Part VII.J.3.i (Redevelopment Projects) below.

3. Redevelopment Projects

i. Redevelopment projects subject to conditioning and approval by the City of Long Beach for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:

(1) Land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site for development categories/project thresholds identified in Part VII.J.2 (New Development Projects).

[18] http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm

Special Conditions for Redevelopment Projects

(a) Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction storm water quality control requirements, the entire project must be mitigated.

(b) Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction storm water quality control requirements, only the alteration must be mitigated, and not the entire development.

(c) Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

(d) Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

ii. In this section, New Development or Redevelopment projects shall mean all discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Order. Projects that have been deemed complete within 90 days of adoption of the Order are not subject to the requirements Part VII.J.4. For the City's projects the effective date shall be the date the governing body or their designee approves initiation of the project design.

4. New Development/ Redevelopment Project Performance Criteria

i. Integrated Water Quality/Flow Reduction/Resources Management Criteria

(1) The City of Long Beach shall require all new development and redevelopment projects, referred to hereinafter as new projects, identified in Part VII.J.2-3 to control pollutants, pollutant loads, and runoff volume emanating from the project site by: (1) minimizing the impervious surface area and (2) controlling runoff from impervious surfaces through infiltration, bioretention and/or rainfall harvest and use.

(2) Except as provided in Part VII.J.4.ii (Technical Infeasibility or Opportunity for Regional Ground Water Replenishment) or Part VII.J.5 (Local Ordinance Equivalence), below, the City of Long Beach shall require the project to retain on-site the stormwater quality design volume (SWQDv) defined as the runoff from:

(a) The 0.75-inch, 24-hour rain event or

(b) The 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, *whichever is greater.*

(3) Bioretention and biofiltration systems shall meet the design specifications provided in Attachment H to this Order unless otherwise approved by the Regional Water Board Executive Officer.

(4) When evaluating the potential for on-site retention, the City of Long Beach shall consider the maximum potential for evapotranspiration from green roofs and rainfall harvest and use.

ii. Alternative Compliance for Technical Infeasibility or Opportunity for Regional Ground Water Replenishment

(1) In instances of technical infeasibility or where a project has been determined to provide an opportunity to replenish regional ground water supplies at an offsite location, the City of Long Beach may allow projects to comply with this Order through the alternative compliance measures as described in Part VII.J.4.iii.

(2) To demonstrate technical infeasibility, the project applicant must demonstrate that the project cannot reliably retain 100 percent of the SWQDv on-site, even with the maximum application of green roofs and rainwater harvest and use, and that compliance with the applicable post-construction requirements would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. Technical infeasibility may result from conditions including the following:

(a) The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv on-site.

(b) Locations where seasonal high ground water is within 5 to 10 feet of the surface,

(c) Locations within 100 feet of a ground water well used for drinking water,

(d) Brownfield development sites where infiltration poses a risk of causing pollutant mobilization,

(e) Other locations where pollutant mobilization is a documented concern[19],

(f) Locations with potential geotechnical hazards, or

(g) Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the on-site volume retention requirement.

[19] Pollutant mobilization is considered a documented concern at or near properties that are contaminated or store hazardous substances underground.

(3) To utilize alternative compliance measures to replenish ground water at an offsite location, the project applicant shall demonstrate (i) why it is not advantageous to replenish ground water at the project site, (ii) that ground water can be used for beneficial purposes at the offsite location, and (iii) that the alternative measures shall also provide equal or greater water quality benefits to the receiving surface water than the Water Quality/Flow Reduction/Resource Management Criteria in Part VII.J.4.i.

iii. Alternative Compliance Measures - When the City of Long Beach determines a project applicant has demonstrated that it is technically infeasible to retain 100 percent of the SWQDv on-site, or is proposing an alternative offsite project to replenish regional ground water supplies, the City of Long Beach shall require one of the following mitigation options:

(1) On-site Biofiltration

(a) If using biofiltration due to demonstrated technical infeasibility, then the new project must biofiltrate 1.5 times the portion of the SWQDv that is not reliably retained on-site, as calculated by Equation 1 below.

Equation 1:

$$Bv = 1.5 * [SWQDv - Rv]$$

Where:
Bv = biofiltration volume

SWQDv = the storm water runoff from a 0.75 inch, 24-hour storm or the 85th percentile storm, *whichever is greater.*
Rv = volume reliably retained on-site

(b) Conditions for On-site Biofiltration

(i) Biofiltration systems shall meet the design specifications provided in Attachment H to this Order unless otherwise approved by the Regional Water Board Executive Officer.

(ii) Biofiltration systems discharging to a receiving water that is included on the Clean Water Act Section 303(d) list of impaired water quality-limited water bodies due to nitrogen compounds or related effects shall be designed and maintained to achieve enhanced nitrogen removal capability. See Attachment H for design criteria for underdrain placement to achieve enhanced nitrogen removal.

(2) Offsite Infiltration

(a) Use infiltration or bioretention BMPs to intercept a volume of storm water runoff equal to the SWQDv, less the volume of storm water runoff reliably retained on-site, at an approved offsite project, and

(b) Provide pollutant reduction (treatment) of the storm water runoff discharged from the project site in accordance with the Water Quality Mitigation Criteria provided in Part VII.J.4.iii.(7).

(c) The required offsite mitigation volume shall be calculated by Equation 2 below and equal to:

Equation 2:

$$Mv = 1.0 * [SWQDv - Rv]$$

Where:
Mv = mitigation volume
SWQDv = runoff from the 0.75 inch, 24-hour storm event or the 85th percentile storm, *whichever is greater*
Rv = the volume of storm water runoff reliably retained on-site.

(3) Ground Water Replenishment Projects

The City of Long Beach may propose, in their Watershed Management Program or EWMP, regional projects to replenish regional ground water supplies at offsite locations, provided the groundwater supply has a designated beneficial use in the Basin Plan.

(a) Regional groundwater replenishment projects must use infiltration, ground water replenishment, or bioretention BMPs to intercept a volume of storm water runoff equal to the SWQDv for new development and redevelopment projects, subject to conditioning and approval by the City of Long Beach for the design and implementation of post-construction controls, within the approved project area, and

(b) Provide pollutant reduction (treatment) of the storm water runoff discharged from development projects, within the project area, subject to conditioning and approval by the City of Long Beach for the design and implementation of post-construction controls to mitigate storm water pollution in accordance with the Water Quality Mitigation Criteria provided in Part VII.J.4.iii.(7).

(c) Where the City of Long Beach elects to implement a regional ground water replenishment project in lieu of onsite controls, it shall ensure the volume of runoff captured by the project shall be equal to:

Equation 2:
$$Mv = 1.0 * [SWQDv - Rv]$$

Where:
Mv = mitigation volume
SWQDv = runoff from the 0.75 inch, 24-hour storm event or the 85th percentile storm, whichever is greater
Rv = the volume of storm water runoff reliably retained on-site.

(d) Regional groundwater replenishment projects shall be located in the same sub-watershed (defined as draining to the same HUC-12 hydrologic area in the Basin Plan, or HUC-12 equivalent area) as the new development or redevelopment projects which did not implement on site retention BMPs . The City of Long Beach may consider locations outside of the HUC-12 but within the HUC-10 subwatershed area if there are no opportunities within the HUC-12 subwatershed or if greater pollutant reductions and/or ground water replenishment can be achieved at a location within the expanded HUC-10 subwatershed. The use of a mitigation, ground water replenishment, or retrofit project outside of the HUC-12 subwatershed is subject to the approval of the Executive Officer of the Regional Water Board.

(4) Offsite Project - Retrofit Existing Development

Use infiltration, bioretention, rainfall harvest and use and/or biofiltration BMPs to retrofit an existing development, with similar land uses as the new development or land uses associated with comparable or higher storm water runoff event mean concentrations (EMCs) than the new development. Comparison of EMCs for different land uses shall be based on published data from studies performed in southern California. The retrofit plan shall be designed and constructed to:

(a) Intercept a volume of storm water runoff equal to the mitigation volume (Mv) as described above in Equation 2, except biofiltration BMPs shall be designed to meet the biofiltration volume as described in Equation 1 and

(b) Provide pollutant reduction (treatment) of the storm water runoff from the project site as described in the Water Quality Mitigation Criteria provided in Part VII.J.4.iii.(7).

(5) Conditions for Offsite Projects

(a) Project applicants seeking to utilize these alternative compliance provisions may propose other offsite projects, which the City of Long Beach may approve if they meet the requirements of this subpart.

(b) Location of offsite projects. Offsite projects shall be located in the same sub-watershed (defined as draining to the same HUC-12 hydrologic area in the Basin Plan) as the new development or redevelopment project. The City of Long Beach may consider locations outside of the HUC-12 but within the HUC-10 subwatershed area if there are no opportunities within the HUC-12 subwatershed or if greater pollutant reductions and/or ground water replenishment can be achieved at a location within the expanded HUC-10 subwatershed. The use of a mitigation, ground water replenishment, or retrofit project outside of the HUC-12 subwatershed is subject to the approval of the Executive Officer of the Regional Water Board.

(c) Project applicant must demonstrate that equal benefits to ground water recharge cannot be met on the project site.

(d) The City of Long Beach shall develop a prioritized list of offsite mitigation, ground water replenishment and/or retrofit projects, and when feasible, the mitigation must be directed to the highest priority project within the same HUC-12 or if approved by the Regional Water Board Executive Officer, the HUC-10 drainage area, as the new development project.

(e) Infiltration/bioretention shall be the preferred LID BMP for offsite mitigation or ground water replenishment projects. Offsite retrofit projects may include green streets, parking lot retrofits, green roofs, and rainfall harvest and use. Biofiltration BMPs may be considered for retrofit projects when infiltration, bioretention or rainfall harvest and use is technically infeasible.

(f) The City of Long Beach shall develop a schedule for the completion of offsite projects, including milestone dates to identify, fund, design, and

construct the projects. Offsite projects shall be completed as soon as possible, and at the latest, within 4 years of the certificate of occupancy for the first project that contributed funds toward the construction of the offsite project, unless a longer period is otherwise authorized by the Executive Officer of the Regional Water Board. For public offsite projects, the City of Long Beach must provide in their annual reports a summary of total offsite project funds raised to date and a description (including location, general design concept, volume of water expected to be retained, and total estimated budget) of all pending public offsite projects. Funding sufficient to address the offsite volume must be transferred to the City of Long Beach (for public offsite mitigation projects) or to an escrow account (for private offsite mitigation projects) within one year of the initiation of construction.

(g) Offsite projects must be approved by the City of Long Beach and may be subject to approval by the Regional Water Board Executive Officer, if a third-party petitions the Executive Officer to review the project. Offsite projects will be publicly noticed on the Regional Water Board's website for 30 days prior to approval.

(h) The project applicant must perform the offsite projects as approved by either the City of Long Beach or the Regional Water Board Executive Officer or provide sufficient funding for public or private offsite projects to achieve the equivalent mitigation storm water volume.

(6) Regional Storm Water Mitigation Program

The City of Long Beach may apply to the Regional Water Board for approval of a regional or sub-regional storm water mitigation program to substitute in part or wholly for New and Redevelopment requirements for the area covered by the regional or sub-regional storm water mitigation program. Upon review and a determination by the Regional Water Board Executive Officer that the proposal is technically valid and appropriate, the Regional Water Board may consider for approval such a program if its implementation meets all of the following requirements:

(a) Retains the runoff from the 85th percentile, 24-hour rain event or the 0.75 inch, 24-hour rain event, whichever is greater;
(b) Results in improved storm water quality;
(c) Protects stream habitat;
(d) Promotes cooperative problem solving by diverse interests;
(e) Is fiscally sustainable and has secure funding; and
(f) Is completed in five years including the construction and start-up of treatment facilities.
(g) Nothing in this provision shall be construed as to delay the implementation of requirements for new and redevelopment, as approved in this Order.

(7) Water Quality Mitigation Criteria

(a) The City of Long Beach shall require all new development and redevelopment projects that have been approved for offsite mitigation or ground water replenishment projects as defined in Part VII.J.4.ii-iii to also provide treatment of storm water runoff from the project site. The City of Long Beach shall require these projects to design and

implement post-construction storm water BMPs and control measures to reduce pollutant loading as necessary to:

(i) Meet the pollutant specific benchmarks listed in Table 10 at the treatment systems outlet or prior to the discharge to the MS4, and

(ii) Ensure that the discharge does not cause or contribute to an exceedance of water quality standards at the City of Long Beach's downstream MS4 outfall.

(b) The City of Long Beach may allow the project proponent to install flow-through modular treatment systems including sand filters, or other proprietary BMP treatment systems with a demonstrated efficiency at least equivalent to a sand filter. The sizing of the flow through treatment device shall be based on a rainfall intensity of:

(i) 0.2 inches per hour, or

(ii) The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, *whichever is greater.*

(c) In addition to the requirements for controlling pollutant discharges as described in Part VII.J.4.iii and the treatment benchmarks described above, the City of Long Beach shall ensure that the new development or redevelopment will not cause or contribute to an exceedance of applicable water quality-based effluent limitations established in Part VIII pursuant to Total Maximum Daily Loads (TMDLs).

Table 10. Benchmarks Applicable to New Development Treatment BMPs[20]

Conventional Pollutants	**Effluent Concentration (mg/l)**
Suspended Solids	14
Total P	0.13
Total N	1.28
TKN	1.09

[20] The treatment control BMP performance benchmarks were developed from the median effluent water quality values of the six highest performing BMPs, per pollutant, in the storm water BMP database (http://www.bmpdatabase.org/, last visited September 25, 2012).

Metals	
Total Cd	0.3
Total Cu	6
Total Cr	2.8
Total Pb	2.5
Total Zn	23

iv. **Watershed Equivalence**
Regardless of the methods through which Discharger allow project applicants to implement alternative compliance measures, the subwatershed-wide (defined as draining to the same HUC-12 hydrologic area in the Basin Plan, or HUC-12 equivalent) result of all development must be at least the same level of water quality protection as would have been achieved if all projects utilizing these alternative compliance provisions had complied with Part VII.J.4.i (Integrated Water Quality/Flow Reduction/Resource Management Criteria).

v. **Reporting**
The City of Long Beach shall provide in their annual report to the Regional Water Board a list of mitigation project descriptions and estimated pollutant and flow reduction analyses (compiled from design specifications submitted by project applicants and approved by the City of Long Beach). Within 4 years of Order adoption, the City of Long Beach must submit in their annual report, a comparison of the expected aggregate results of alternative compliance projects to the results that would otherwise have been achieved by retaining on site the SWQDv.

5. **Implementation**
   i. **Local Ordinance Equivalence** On November 16, 2010, the City of Long Beach adopted LID regulations under Ordinance No. ORD-10-0035;amended on November 12, 2013 by ORD-13-0024. The Ordinance expanded the category of projects subject to post-construction BMPs to include any new development or redevelopment that results in the replacement of more than fifty (50%) of an existing building structure, or impervious cover. The Ordinance requires all projects, with the exception of small scale residential development projects to utilize stormwater management techniques that must be properly sized, at a minimum, to infiltrate, evapotranspire, store for use, without any stormwater runoff leaving the site to the maximum extent feasible, for at least the volume of water produced by the water quality design storm event. Provided the City of Long Beach condition projects in Part VII.J.2 and Part VII.J.3 to include a retention requirement numerically equal to the 0.75-inch, 24-hour rain event or the 85th percentile, 24-hour rain event, whichever is greater, the City of Long Beach may submit documentation to the Regional Water Board that the alternative requirements in the local ordinance will provide equal or greater reduction in storm water discharge pollutant loading

and volume as would have been obtained through strict conformance with Part VII.J.4.i (Integrated Water Quality/Flow Reduction Resources Management Criteria) or Part VII.J.4.ii (Alternative Compliance Measures for Technical Infeasibility or Opportunity for Regional Ground water Replenishment) of this Order and request that the City of Long Beach be allowed to implement Ordinance no. ORD-10-0035, as amended on November 12, 2013 by ORD-13-0024 in lieu of requirements in Part VII.J.

(1) Documentation shall be submitted within 60 days after the effective date of this Order.

(2) The Regional Water Board shall provide public notice of the proposed equivalency determination and a minimum 30-day period for public comment. After review and consideration of public comments, the Regional Water Board Executive Officer will determine whether implementation of the local ordinance provides equivalent pollutant control to the applicable provisions of this Order. Local ordinances that do not strictly conform to the provisions of this Order must be approved by the Regional Water Board Executive Officer as being "equivalent" in effect to the applicable provisions of this Order in order to substitute for the requirements in Part VII.J.

(3) Where the Regional Water Board Executive Officer determines that a the City of Long Beach's local LID ordinance does not provide equivalent pollutant control, the City of Long Beach shall either

(a) Require conformance with Part VII.J.4, or

(b) Update its local ordinance to conform to the requirements herein within one year of the effective date of this Order.

ii. Project Coordination

(1) The City of Long Beach shall facilitate a process for effective approval of post-construction storm water control measures. The process shall include:

(a) Detailed LID site design and BMP review including BMP sizing calculations, BMP pollutant removal performance, and municipal approval; and

(b) An established structure for communication and delineated authority between and among municipal departments that have jurisdiction over project review, plan approval, and project construction through memoranda of understanding or an equivalent agreement.

iii. Maintenance Agreement and Transfer

(1) Prior to issuing approval for final occupancy, the City of Long Beach shall require that all new development and redevelopment projects subject to post-construction BMP requirements, with the exception of simple LID BMPs implemented on single family residences, provide an operation and maintenance plan, monitoring plan, where required, and verification of ongoing maintenance provisions for LID practices and Treatment Control BMPs, including but not limited to: final map conditions, legal agreements,

covenants, conditions or restrictions, CEQA mitigation requirements, conditional use permits, and/ or other legally binding maintenance agreements. The City of Long Beach shall require maintenance records be kept on site for treatment BMPs implemented on single family residences.

(a) Verification at a minimum shall include the developer's signed statement accepting responsibility for maintenance until the responsibility is legally transferred; and either:

(i) A signed statement from the public entity assuming responsibility for BMP maintenance; or

(ii) Written conditions in the sales or lease agreement, which require the property owner or tenant to assume responsibility for BMP maintenance and conduct a maintenance inspection at least once a year; or

(iii) Written text in project covenants, conditions, and restrictions (CCRs) for residential properties assigning BMP maintenance responsibilities to the Home Owners Association; or

(iv) Any other legally enforceable agreement or mechanism that assigns responsibility for the maintenance of BMPs.

(b) The City of Long Beach shall require all development projects subject to post-construction BMP requirements to provide a plan for the operation and maintenance of all structural and treatment controls. The plan shall be submitted for examination of relevance to keeping the BMPs in proper working order. Where BMPs are transferred to the City for ownership and maintenance, the plan shall also include all relevant costs for upkeep of BMPs in the transfer. Operation and Maintenance plans for private BMPs shall be kept on-site for periodic review by City or Regional Water Board inspectors.

iv. Tracking, Inspection, and Enforcement of Post-Construction BMPs

(1) The City of Long Beach shall implement a tracking system and an inspection and enforcement program for new development and redevelopment post-construction storm water no later than 60 days after Order adoption date.

(a) Implement a GIS or other electronic system for tracking projects that have been conditioned for post-construction BMPs. The electronic system, at a minimum, should contain the following information:

(i) Municipal Project ID

(ii) State WDID No.

(iii) Project Acreage

(iv) BMP Type and Description

(v) BMP Location (coordinates)

(vi) Date of Acceptance

(vii) Date of Maintenance Agreement

(viii) Maintenance Records

(ix) Inspection Date and Summary

(x) Corrective Action

(xi) Date Certificate of Occupancy Issued

(xii) Replacement or Repair Date

(b) Inspect all development sites upon completion of construction and prior to the issuance of occupancy certificates to ensure proper installation of LID measures, structural BMPs and treatment control BMPs. The inspection may be combined with other inspections provided it is conducted by trained personnel.

(c) Verify proper maintenance and operation of post-construction BMPs previously approved for new development and redevelopment and operated by the City of Long Beach. The post-construction BMP maintenance inspection program shall incorporate the following elements:

(i) The development of a Post-construction BMP Maintenance Inspection checklist

(ii) Inspection at least once every 2 years after project completion, of post-construction BMPs to assess operation conditions with particular attention to criteria and procedures for post-construction treatment control BMP repair, replacement, or re-vegetation.

(d) For post-construction BMPs operated and maintained by parties other than the City of Long Beach, the City of Long Beach shall require the other parties to document proper maintenance and operations.

(e) Undertake enforcement action per the established Progressive Enforcement Policy as appropriate based on the results of the inspection. See Part VII.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

K. Construction Program

1. The City of Long Beach shall develop and implement an enforceable erosion and sediment control program including establishing ordinances for all construction sites that disturb soil that:

i. Prevents illicit construction-related discharges of pollutants into the MS4 and receiving waters.

ii. Implements and maintains structural and non-structural BMPs to reduce pollutants in storm water runoff from construction sites.

iii. Reduces construction site discharges of pollutants to the MS4 to the MEP.

iv. Prevents construction site discharges to the MS4 from causing or contributing to a violation of water quality standards.

v. Construction Program Applicability

The provisions contained in Part VII.K.6.vi below apply exclusively to construction sites less than 1 acre. Provisions contained in Part VII.K.6.vii-xii apply exclusively to construction sites 1 acre or greater. The requirements contained in this part apply to all activities involving soil disturbance with the exception of agricultural activities. Activities covered by this permit include but are not limited to grading, vegetation clearing, soil compaction, paving, re-paving and linear underground/overhead projects (LUPs).

vi. Requirements for Construction Sites Less than One Acre

(1) Through the use of the City of Long Beach's erosion and sediment control ordinance or and/or building permit, require the implementation of an effective combination of erosion and sediment control BMPs from Table 11 to prevent erosion and sediment loss, and the discharge of construction wastes.

Table 11. Applicable Set of BMPs for All Construction Sites

Erosion Controls	Scheduling
	Preservation of Existing Vegetation
Sediment Controls	Silt Fence
	Sand Bag Barrier
	Stabilized Construction Site Entrance/Exit
Non-Storm Water Management	Water Conservation Practices
	Dewatering Operations
Waste Management	Material Delivery and Storage
	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management
	Concrete Waste Management
	Sanitary/Septic Waste Management

(2) Possess the ability to identify all construction sites with soil disturbing activities that require a permit, regardless of size, and shall be able to provide a list of permitted sites upon request of the Regional Water Board. The City of Long Beach may use existing permit databases or other tracking systems to comply with these requirements.

(3) Inspect construction sites on as needed based on the evaluation of the factors that are a threat to water quality. In evaluating the threat to water quality, the following factors shall be considered: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges; past record of non-compliance by the operators of the construction site; and any water quality issues relevant to the particular MS4.

(4) Implement the City of Long Beach's Progressive Enforcement Policy to ensure that construction sites are brought into compliance with the erosion and sediment control ordinance within a reasonable time period. See Part VII.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

vii. The City of Long Beach shall require operators of public and private construction sites within its jurisdiction to select, install, implement, and maintain BMPs that comply with its erosion and sediment control ordinance.

viii. The requirements contained in this part apply to all activities involving soil disturbance with the exception of agricultural activities. Activities covered by this permit include but are not limited to grading, vegetation clearing, soil compaction, paving, re-paving and linear underground/overhead projects (LUPs).

ix. **Construction Site Inventory / Electronic Tracking System**

(1) The City of Long Beach shall use an electronic system to inventory grading permits, encroachment permits, demolition permits, building permits, or construction permits (and any other municipal authorization to move soil and/ or construct or destruct that involves land disturbance) issued by the City of Long Beach. To satisfy this requirement, the use of a database or GIS system is recommended.

(2) The City of Long Beach shall complete an inventory and continuously update as new sites are permitted and sites are completed. The inventory / tracking system shall contain, at a minimum:

(a) Relevant contact information for each project (e.g., name, address, phone, email, etc. for the owner and contractor.

(b) The basic site information including location, status, size of the project and area of disturbance.

(c) The proximity all water bodies, water bodies listed as impaired by sediment-related pollutants, and water bodies for which a sediment-related TMDL has been adopted and approved by USEPA.

(d) Significant threat to water quality status, based on consideration of factors listed in Appendix 1 to the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit).

(e) Current construction phase where feasible.

(f) The required inspection frequency.

(g) The project start date and anticipated completion date.

(h) Whether the project has submitted a Notice of Intent and obtained coverage under the Construction General Permit.

(i) The date the City of Long Beach approved the erosion and sediment control plan (ESCP).

(j) Post-construction structural BMPs subject to operation and maintenance Requirements.

x. Construction Plan Review and Approval Procedures

(1) The City of Long Beach shall develop procedures to review and approve relevant construction plan documents.

(2) The review procedures shall be developed and implemented such that the following minimum requirements are met:

(a) Prior to issuing a grading or building permit, the City of Long Beach shall require each operator of a construction activity within its jurisdiction to prepare and submit an ESCP prior to the disturbance of land for the City of Long Beach's review and written approval. The construction site operator shall be prohibited from commencing construction activity prior to receipt of written approval by the City of Long Beach. The City of Long Beach shall not approve any ESCP unless it contains appropriate site-specific construction site BMPs that meet the minimum requirements of the City's erosion and sediment control ordinance.

(b) ESCPs must include the elements of a Storm Water Pollution Prevention Plan (SWPPP). SWPPPs prepared in accordance with the requirements of the Construction General Permit can be accepted as ESCPs.

(c) At a minimum, the ESCP must address the following elements:

(i) Methods to minimize the footprint of the disturbed area and to prevent soil compaction outside of the disturbed area.

(ii) Methods used to protect native vegetation and trees.

(iii) Sediment/Erosion Control.

(iv) Controls to prevent tracking on and off the site.

(v) Non-storm water controls (e.g., vehicle washing, dewatering, etc.).

(vi) Materials Management (delivery and storage).

(vii) Spill Prevention and Control.

(viii) Waste Management (e.g., concrete washout/waste management; sanitary waste management).

(ix) Identification of site Risk Level as identified per the requirements in Appendix 1 of the Construction General Permit.

(d) The ESCP must include the rationale for the selection and design of the proposed BMPs, including quantifying the expected soil loss from different BMPs.

(e) The City of Long Beach shall require that the ESCP is developed and certified by a Qualified SWPPP Developer (QSD).

(f) The City of Long Beach shall require that all structural BMPs be designed by a licensed California Engineer.

(g) The City of Long Beach shall require that for all sites, the landowner or the landowner's agent sign a statement on the ESCP as follows:

(i) "I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that submitting false and/ or inaccurate information, failing to update the ESCP to reflect current conditions, or failing to properly and/ or adequately implement the ESCP may result in revocation of grading and/ or other permits or other sanctions provided by law."

(3) Prior to issuing a grading or building permit, the City of Long Beach must verify that the construction site operators have existing coverage under applicable permits, including, but not limited to the State Water Board's Construction General Permit, and State Water Board 401 Water Quality Certification.

(4) The City of Long Beach shall develop and implement a checklist to be used to conduct and document review of each ESCP.

xi. BMP Implementation Level

(1) The City of Long Beach shall implement technical standards for the selection, installation and maintenance of construction BMPs for all construction sites within its jurisdiction.

(2) The BMP technical standards shall require:

(a) The use of BMPs that are tailored to the risks posed by the project. Sites are to be ranked from Low Risk (Risk 1) to High Risk (Risk 3). Project risks are to be calculated based on the potential for erosion from the site and the sensitivity of the receiving water body. Receiving water bodies that are listed on the Clean Water Act (CWA) Section 303(d) list for sediment or siltation are considered High Risk. Likewise, water bodies with designated beneficial uses of SPWN, COLD, and MIGR are also considered to be High Risk. The combined (sediment/receiving water) site risk shall be calculated using the methods provided in Appendix 1 of the Construction General Permit. At a minimum, the BMP technical standards shall include requirements for High Risk sites as defined in Table 14.

(b) The use of BMPs for all construction sites, sites equal or greater to 1 acre, and for paving projects per Tables 13 and 15 of this Order.

(c) Detailed installation designs and cut sheets for use within ESCPs.

(d) Maintenance expectations for each BMP, or category of BMPs, as appropriate.

(3) The City of Long Beach is encouraged to adopt respective BMPs from latest versions of the *California BMP Handbook, Construction* or *Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual* and addenda. Alternatively, the City is authorized

to develop or adopt equivalent BMP standards consistent for Southern California and for the range of activities presented below in Tables 12 through 15.

(4) The local BMP technical standards shall be readily available to the development community and shall be clearly referenced within the City of Long Beach's storm water or development services website, ordinance, permit approval process and/or ESCP review forms. The local BMP technical standards shall also be readily available to the Regional Water Board upon request.

(5) Local BMP technical standards shall be available for the following:

Table 12. Minimum BMPs for All Construction Sites

Erosion Controls	Scheduling
	Preservation of Existing Vegetation
Sediment Controls	Silt Fence
	Sand Bag Barrier
	Stabilized Construction Site Entrance/Exit
Non-Storm water Management	Water Conservation Practices
	Dewatering Operations
Waste Management	Material Delivery and Storage
	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management
	Concrete Waste Management
	Sanitary/Septic Waste Management

Table 13. Additional BMPs for Construction Sites Disturbing ≥ 1 Acre

Erosion Controls	Hydraulic Mulch
	Hydroseeding
	Soil Binders
	Straw Mulch
	Geotextiles and Mats
	Wood Mulching
Sediment Controls	Fiber Rolls
	Gravel Bag Berm
	Street Sweeping and/ or Vacuum
	Storm Drain Inlet Protection
	Scheduling
	Check Dam
Additional Controls	Wind Erosion Controls
	Stabilized Construction Entrance/ Exit
	Stabilized Construction Roadway
	Entrance/ Exit Tire Wash
Non-Storm water Management	Vehicle and Equipment Washing
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance

Waste Management	Material Delivery and Storage
	Spill Prevention and Control

Table 14. Additional BMPs for High Risk Sites

Erosion Controls	Hydraulic Mulch
	Hydroseeding
	Soil Binders
	Straw Mulch
	Geotextiles and Mats
	Wood Mulching
	Slope Drains
Sediment Controls	Silt Fence
	Fiber Rolls
	Sediment Basin
	Check Dam
	Gravel Bag Berm
	Street Sweeping and/or Vacuum
	Sand Bag Barrier
	Storm Drain Inlet Protection
Additional Controls	Wind Erosion Controls
	Stabilized Construction Entrance/Exit
	Stabilized Construction Roadway
	Entrance/Exit Tire Wash
	Advanced Treatment Systems (applies to public roadway projects)
Non-Storm water Management	Water Conservation Practices
	Dewatering Operations (Ground water dewatering only under NPDES Permit No. CAG994004)
	Vehicle and Equipment Washing
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance
Waste Management	Material Delivery and Storage
	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management

Table 15. Minimum BMPs for Roadway Paving or Repair Operation (Private or Public Projects

1	Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall unless required by emergency conditions.
2	Install gravel bags and filter fabric or other equivalent inlet protection at all susceptible storm drain inlets and at manholes to prevent spills of paving products and tack coat.
3	Prevent the discharge of release agents including soybean oil, other oils, or diesel to the storm water drainage system or receiving waters.
4	Minimize non storm water runoff from water use for the roller and for evaporative cooling of the asphalt.
5	Clean equipment over absorbent pads, drip pans, plastic sheeting or other material to capture all spillage and dispose of properly.
6	Collect liquid waste in a container, with a secure lid, for transport to a maintenance facility to be reused, recycled or disposed of properly.
7	Collect solid waste by vacuuming or sweeping and securing in an appropriate container for transport to a maintenance facility to be reused, recycled or disposed of properly.
8	Cover the "cold-mix" asphalt (i.e., pre-mixed aggregate and asphalt binder) with protective sheeting during a rainstorm.
9	Cover loads with tarp before haul-off to a storage site, and do not overload trucks.
10	Minimize airborne dust by using water spray or other approved dust suppressant during grinding.
11	Avoid stockpiling soil, sand, sediment, asphalt material and asphalt grindings materials or rubble in or near storm water drainage system or receiving waters.
12	Protect stockpiles with a cover or sediment barriers during a rain.

xii. Construction Site Inspection

1. The City of Long Beach shall use its legal authority to implement procedures for inspecting public and private construction sites.

2. The inspection procedures shall be implemented as follows:

(1) Inspect the public and private construction sites as specified in Table 16 below:

Table 16. Inspection Frequencies for Sites ≥1 Acre

Site	Inspection Frequency Shall Occur
All sites 1 acre or larger that discharge to a tributary listed by the state as an impaired water for sediment or turbidity under the CWA Section 303(d)	(1) when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA[21], (2) within 48 hours of a ½-inch rain event and at (3) least once every two weeks
Other sites 1 acre or more determined to be a significant threat to water quality[22]	
All other construction sites with 1 acre or more of soil disturbance not meeting the criteria above	At least monthly

(2) The City of Long Beach shall inspect all phases of construction as follows:

(a) Prior to Land Disturbance

Prior to allowing an operator to commence land disturbance, the City of Long Beach shall perform an inspection to ensure all necessary erosion and sediment structural and non-structural BMP materials and procedures are available per the erosion and sediment control plan.

(b) During Active Construction, including Land Development[23] and Vertical Construction[24]

In accordance with the frequencies specified in Part VII.J.6.xii and Table 10 of this Order, the City of Long Beach shall perform an inspection to ensure all necessary erosion and sediment structural and non-structural BMP materials and procedures are available per the erosion and sediment control plan throughout the construction process.

(c) Final Landscaping / Site Stabilization[25]

At the conclusion of the project and as a condition of approving and/or issuing a Certificate of Occupancy, the City of Long Beach

[21] www.srh.noaa.gov/forecast

[22] In evaluating the threat to water quality, the following factors shall be considered: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges; past record of non-compliance by the operators of the construction site; and any water quality issues relevant to the particular MS4.

[23] Activities include cuts and fills, rough and finished grading; alluvium removals; canyon cleanouts; rock undercuts; keyway excavations; stockpiling of select material for capping operations; and excavation and street paving, lot grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm sewer system and/or other drainage improvement.

[24] The build out of structures from foundations to roofing, including rough landscaping.

[25] All soil disturbing activities at each individual parcel within the site have been completed.

shall inspect the constructed site to ensure that all graded areas have reached final stabilization and that all trash, debris, and construction materials, and temporary erosion and sediment BMPs are removed.

(d) Based on the required frequencies above, each construction project shall be inspected a minimum of three times.

(e) Inspection Standard Operating Procedures
The City of Long Beach shall develop, implement, and revise as necessary, standard operating procedures that identify the inspection procedures the City of Long Beach will follow. Inspections of construction sites, and the standard operating procedures, shall include, but are not limited to:

(i) Verification of active coverage under the Construction General Permit for sites disturbing 1 acre or more, or that are part of a planned development that will disturb 1 acre or more and a process for referring non-filers to the Regional Water Board.

(ii) Review of the applicable ESCP and inspection of the construction site to determine whether all BMPs have been selected, installed, implemented, and maintained according to the approved plan and subsequent approved revisions.

(iii) Assessment of the appropriateness of the planned and installed BMPs and their effectiveness.

(iv) Visual observation and record keeping of non-storm water discharges, potential illicit discharges and connections, and potential discharge of pollutants in storm water runoff.

(v) Development of a written or electronic inspection report generated from an inspection checklist used in the field.

(vi) Tracking of the number of inspections for the inventoried construction sites throughout the reporting period to verify that the sites are inspected at the minimum frequencies required in Table 16 of this Order.

xiii. Enforcement

The City of Long Beach shall implement its Progressive Enforcement Policy to ensure that construction sites are brought into compliance with all storm water requirements within a reasonable time period. See Part VII.D.2 for requirements for the development and implementation of a progressive enforcement policy.

xiv. Staff Training

(1) The City of Long Beach shall ensure that all staff whose primary job duties are related to implementing the construction storm water program are adequately trained.

(2) The City of Long Beach may conduct in-house training or contract with consultants. Training shall be provided to the following staff positions of the MS4:

(a) Plan Reviewers and Permitting Staff

Ensure staff and consultants are trained as qualified individuals, knowledgeable in the technical review of local erosion and sediment control ordinance, local BMP technical standards, ESCP requirements, and the key objectives of the State Water Board QSD program. The City of Long Beach may provide internal training to staff or require staff to obtain QSD certification.

(b) Erosion Sediment Control/Storm Water Inspectors

The City of Long Beach shall ensure that its inspectors are knowledgeable in inspection procedures consistent with the State Water Board sponsored program QSD or a Qualified SWPPP Practitioner (QSP) or that a designated person on staff who has been trained in the key objectives of the QSD/QSP programs supervises inspection operations. The City of Long Beach may provide internal training to staff or require staff to obtain QSD/QSP certification. Each inspector must be knowledgeable of the local BMP technical standards and ESCP requirements.

(c) Third-Party Plan Reviewers, Permitting Staff, and Inspectors

If the City of Long Beach utilizes outside parties to conduct inspections and/or review plans, the City of Long Beach shall ensure these staff are trained per the requirements listed above. Outside contractors can self-certify, providing they certify they have received all applicable training required in the Permit and have documentation to that effect.

L. Public Agency Activities Program

1. The City of Long Beach shall implement a Public Agency Activities Program to minimize storm water pollution impacts from City-owned or operated facilities and activities and to identify opportunities to reduce storm water pollution impacts from areas of existing development. Requirements for Public Agency Facilities and Activities consist of the following components:

   i. Public Construction Activities Management

   ii. Public Facility Inventory

   iii. Inventory of Existing Development for Retrofitting Opportunities

   iv. Public Facility and Activity Management

   v. Vehicle and Equipment Wash Areas

   vi. Landscape, Park, and Recreational Facilities Management

   vii. Storm Drain Operation and Maintenance

   viii. Streets, Roads, and Parking Facilities Maintenance

   ix. Emergency Procedures

   x. Municipal Employee and Contractor Training

2. Public Construction Activities Management

i. The City of Long Beach shall implement and comply with the Planning and Land Development Program requirements in Part VII.J of this Order at City-owned or operated (i.e., public or City sponsored) construction projects that are categorized under the project types identified in Part VII.J.2-3 of this Order.

ii. The City of Long Beach shall implement and comply with the appropriate Development Construction Program requirements in Part VII.K of this Order at City-owned or operated construction projects as applicable.

iii. For City-owned or operated projects (including those under a capital improvement project plan) that disturb less than one acre of soil, the City of Long Beach shall require an effective combination of erosion and sediment control BMPs from Table 12 (see Construction Development Program, minimum BMPs).

iv. The City of Long Beach shall obtain separate coverage under the Construction General Permit for all City-owned or operated construction sites that require coverage.

3. Public Facility Inventory

i. The City of Long Beach shall maintain an updated inventory of all City-owned or operated (i.e., public) facilities within its jurisdiction that are potential sources of storm water pollution. The incorporation of facility information into a GIS is recommended. Sources to be tracked include but are not limited to the following:

(1) Animal control facilities

(2) Chemical storage facilities

(3) Composting facilities

(4) Equipment storage and maintenance facilities (including landscape maintenance-related operations)

(5) Fueling or fuel storage facilities (including municipal airports)

(6) Hazardous waste disposal facilities

(7) Hazardous waste handling and transfer facilities

(8) Incinerators

(9) Landfills

(10) Materials storage yards

(11) Pesticide storage facilities

(12) Fire stations

(13) Public restrooms

(14) Public parking lots

(15) Public golf courses

(16) Public swimming pools

(17) Public parks

(18) Public works yards

(19) Public marinas

(20) Recycling facilities

(21) Solid waste handling and transfer facilities

(22) Vehicle storage and maintenance yards

(23) Storm water management facilities (e.g., detention basins)

(24) All other City-owned or operated facilities or activities that the City of Long Beach determines may contribute a substantial pollutant load to the MS4.

ii. The City of Long Beach shall include the following minimum fields of information for the City of Long Beach-owned or operated facility in its inventory.

(1) Name of facility

(2) Name of facility manager and contact information

(3) Address of facility (physical and mailing)

(4) A narrative description of activities performed and potential pollution sources.

(5) Coverage under the Industrial General Permit or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.

iii. The City of Long Beach shall update its inventory at least once during the 5-year term of the Order. The update shall be accomplished through collection of new information obtained through field activities or through other readily available inter and intra-agency informational databases (e.g., property management, land-use approvals, accounting and depreciation ledger account, and similar information).

4. Inventory of Existing Development for Retrofitting Opportunities

i. The City of Long Beach shall develop an inventory of retrofitting opportunities that meets the requirements of this Part VII.L.4. Retrofit opportunities shall be identified within the public right-of-way or in coordination with a TMDL implementation plan(s). The goals of the existing development retrofitting inventory are to address the impacts of existing development through regional or sub-regional retrofit projects that reduce the discharges of storm water pollutants into the MS4 and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards as defined in Part VI (Receiving Water Limitations).

ii. The City of Long Beach shall screen existing areas of development to identify candidate areas for retrofitting using watershed models or other screening level tools.

iii. The City of Long Beach shall evaluate and rank the areas of existing development identified in the screening to prioritize retrofitting candidates. Criteria for evaluation may include but are not limited to:

(1) Feasibility, including general private and public land availability;

(2) Cost effectiveness;

(3) Pollutant removal effectiveness;

(4) Tributary area potentially treated;

(5) Maintenance requirements;

(6) Landowner cooperation;

(7) Neighborhood acceptance;

(8) Aesthetic qualities;

(9) Efficacy at addressing concern; and

(10) Potential improvements to public health and safety.

iv. The City of Long Beach shall consider the results of the evaluation in the following programs:

(1) The City of Long Beach's storm water management program: Highly feasible projects expected to benefit water quality should be given a high priority to implement source control and treatment control BMPs in the City's SWMP.

(2) Off-site mitigation for New Development and Redevelopment: The City of Long Beach shall consider high priority retrofit projects as candidates for off-site mitigation projects per part VII.J.4.iii(4).

(3) Where feasible, at the discretion of the City of Long Beach, the existing development retrofitting program may be coordinated with flood control projects and other infrastructure improvement programs per Part VII.L.5.ii(2) below.

v. The City of Long Beach shall cooperate with private landowners to encourage site specific retrofitting projects. The City of Long Beach shall consider the following practices in cooperating with private landowners to retrofit existing development:

(1) Demonstration retrofit projects;

(2) Retrofits on public land and easements that treat runoff from private developments;

(3) Education and outreach;

(4) Subsidies for retrofit projects;

(5) Requiring retrofit projects as enforcement, mitigation or ordinance compliance;

(6) Public and private partnerships;

(7) Fees for existing discharges to the MS4 and reduction of fees for retrofit implementation.

5. Public Agency Facility and Activity Management

i. The City of Long Beach shall obtain separate coverage under the Industrial General Permit for all City-owned or operated facilities where industrial

activities are conducted that require coverage under the Industrial General Permit.

ii. The City of Long Beach shall implement the following measures for City-owned and operated flood management projects:

(1) Develop procedures to assess the impacts of flood management projects on the water quality of receiving water bodies; and

(2) Evaluate existing structural flood control facilities to determine if retrofitting the facility to provide additional pollutant removal from storm water is feasible.

iii. The City of Long Beach shall ensure the implementation and maintenance of activity specific BMPs listed in Table 17 (BMPs for Public Agency Facilities and Activities) or an equivalent set of BMPs when such activities occur at City-owned or operated facilities and field activities (e.g., project sites) including but not limited to the facility types listed in Part VII.L.3 above, and at any area that includes the activities described in Table 17, or that have the potential to discharge pollutants in storm water.

iv. Any contractors hired by the City of Long Beach to conduct Public Agency Activities including, but not limited to, storm and/or sanitary sewer system inspection and repair, street sweeping, trash pick-up and disposal, and street and right-of-way construction and repair shall be contractually required to implement and maintain the activity specific BMPs listed in Table 17. The City of Long Beach shall conduct oversight of contractor activities to ensure these BMPs are implemented and maintained.

v. City-owned or operated facilities that have obtained coverage under the Industrial General Permit shall implement and maintain BMPs consistent with the associated SWPPP and are therefore not required to implement and maintain the activity specific BMPs listed in Table 17.

vi. Effective source control BMPs for the activities listed in Table 17 shall be implemented at City-owned or operated facilities, unless the pollutant generating activity does not occur. The City of Long Beach shall require implementation of additional BMPs where storm water from the MS4 discharges to a significant ecological area (SEA, see Attachment A for definition), a water body subject to TMDL provisions in Part VIII, or a CWA Section 303(d) listed water body (see Part VIII below). Likewise, for those BMPs that are not adequately protective of water quality standards, the City may require additional site-specific controls.

Table 17. BMPs for Public Agency Facilities and Activities

General and Activity Specific BMPs	
General BMPs	Scheduling and Planning
	Spill Prevention and Control
	Sanitary/Septic Waste Management
	Material Use
	Safer Alternative Products
	Vehicle/Equipment Cleaning, Fueling and Maintenance
	Illicit Connection Detection, Reporting and Removal
	Illegal Spill Discharge Control
	Maintenance Facility Housekeeping Practices
Flexible Pavement	Asphalt Cement Crack and Joint Grinding/ Sealing
	Asphalt Paving
	Structural Pavement Failure (Digouts) Pavement Grinding and Paving
	Emergency Pothole Repairs
	Sealing Operations
Rigid Pavement	Portland Cement Crack and Joint Sealing
	Mudjacking and Drilling
	Concrete Slab and Spall Repair
Slope/ Drains/ Vegetation	Shoulder Grading
	Non-landscaped Chemical Vegetation Control
	Non-landscaped Mechanical Vegetation Control/ Mowing
	Non-landscaped Tree and Shrub Pruning, Brush Chipping, Tree and Shrub Removal
	Fence Repair
	Drainage Ditch and Channel Maintenance
	Drain and Culvert Maintenance

General and Activity Specific BMPs	
	Curb and Sidewalk Repair
Litter/ Debris/ Graffiti	Sweeping Operations
	Litter and Debris Removal
	Emergency Response and Cleanup Practices
	Graffiti Removal
Landscaping	Chemical Vegetation Control
	Manual Vegetation Control
	Landscaped Mechanical Vegetation Control/ Mowing
	Landscaped Tree and Shrub Pruning, Brush Chipping, Tree and Shrub Removal
	Irrigation Line Repairs
	Irrigation (Watering), Potable and Non-potable
Environmental	Storm Drain Stenciling
	Roadside Slope Inspection
	Roadside Stabilization
	Stormwater Treatment Devices
	Traction Sand Trap Devices
Bridges	Welding and Grinding
	Sandblasting, Wet Blast with Sand Injection and Hydroblasting
	Painting
	Bridge Repairs
Other Structures	Pump Station Cleaning
	Tube and Tunnel Maintenance and Repair
	Tow Truck Operations
	Toll Booth Lane Scrubbing Operations
Electrical	Sawcutting for Loop Installation

General and Activity Specific BMPs	
Traffic Guidance	Thermoplastic Striping and Marking
	Paint Striping and Marking
	Raised/ Recessed Pavement Marker Application and Removal
	Sign Repair and Maintenance
	Median Barrier and Guard Rail Repair
	Emergency Vehicle Energy Attenuation Repair
Storm Maintenance	Minor Slides and Slipouts Cleanup/ Repair
Management and Support	Building and Grounds Maintenance
	Storage of Hazardous Materials (Working Stock)
	Material Storage Control (Hazardous Waste)
	Outdoor Storage of Raw Materials
	Vehicle and Equipment Fueling
	Vehicle and Equipment Cleaning
	Vehicle and Equipment Maintenance and Repair
	Aboveground and Underground Tank Leak and Spill Control

6. Vehicle and Equipment Washing

i. The City of Long Beach shall implement and maintain the activity specific BMPs listed in Table 17 (BMPs for Public Agency Facilities and Activities) for all fixed vehicle and equipment washing except for fire-fighting vehicles.

ii. The City of Long Beach shall prevent discharges of wash waters from vehicle and equipment washing to the MS4 by implementing any of the following measures at existing facilities with vehicle or equipment wash areas (with the exception of fire stations):

(1) Self-contain, and haul off for disposal; or

(2) Equip with a clarifier or an alternative pre-treatment device and plumb to the sanitary sewer in accordance with applicable waste water provider regulations.

iii. The City of Long Beach shall ensure that any municipal facilities constructed, redeveloped, or replaced shall not discharge wastewater from vehicle and equipment wash areas to the MS4 by plumbing all areas to the sanitary sewer in accordance with applicable waste water provider regulations, or self-

containing all waste water/ wash water and hauling to a point of legal disposal (excluding fire stations).

7. Landscape, Park, and Recreational Facilities Management

i. The City of Long Beach shall implement and maintain the activity specific BMPs listed in Table 17 for all public right-of-ways, flood control facilities and open channels, lakes and reservoirs, and landscape, park, and recreational facilities and activities.

ii. The City of Long Beach shall implement an IPM program that includes the following:

(1) Pesticides are used only if monitoring indicates they are needed, and pesticides are applied according to applicable permits and established guidelines.

(2) Treatments are made with the goal of removing only the target organism.

(3) Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial non-target organisms, and the environment.

(4) The use of pesticides, including organophosphates and pyrethroids, does not threaten water quality.

(5) Partner with other agencies and organizations to encourage the use of IPM.

(6) Adopt and verifiably implement policies, procedures, and/ or ordinances requiring the minimization of pesticide use and encouraging the use of IPM techniques (including beneficial insects) for Public Agency Facilities and Activities.

(7) Policies, procedures, and ordinances shall include commitments and a schedule to reduce the use of pesticides that cause impairment of surface waters by implementing the following procedures:

(a) Prepare and annually update an inventory of pesticides used by all internal departments, divisions, and other operational units.

(b) Quantify pesticide use by staff and hired contractors.

(c) Demonstrate implementation of IPM alternatives where feasible to reduce pesticide use.

iii. The City of Long Beach shall implement the following requirements:

(1) Use a standardized protocol for the routine and non-routine application of pesticides (including pre-emergents), and fertilizers.

(2) Ensure there is no application of pesticides or fertilizers (1) when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA[26], (2) within 48 hours of a ½-inch rain event, or (3) when water is flowing off the area where the application is to occur. The requirements in Part VII.L.7.iii.2 do not apply to the application of aquatic pesticides or pesticides which require water for activation.

(3) Ensure that no banned or unregistered pesticides are stored or applied.

[26] www.srh.noaa.gov/forecast

(4) Ensure that all staff applying pesticides are certified in the appropriate category by the California Department of Pesticide Regulation, or are under the direct supervision of a pesticide applicator certified in the appropriate category.

(5) Implement procedures to encourage the retention and planting of native vegetation to reduce water, pesticide and fertilizer needs; and

(6) Store pesticides and fertilizers indoors or under cover on paved surfaces, or use secondary containment.

(a) Reduce the use, storage, and handling of hazardous materials to reduce the potential for spills.

(b) Regularly inspect storage areas.

8. Storm Drain Operation and Maintenance

i. The City of Long Beach shall implement and maintain the activity specific BMPs listed in Table 17 for storm drain operation and maintenance.

ii. Ensure that all material removed from the MS4 does not reenter the system. Solid material shall be dewatered in a contained area and liquid material shall be disposed in accordance with any of the following measures:

(1) Self-contain, and haul off for legal disposal; or

(2) Applied to the land without runoff; or

(3) Equip with a clarifier or an alternative pre-treatment device; and plumb to the sanitary sewer in accordance with applicable waste water provider regulations.

iii. Catch Basin Cleaning

(1) In areas that are not subject to a trash TMDL, the City of Long Beach shall determine priority areas and shall update its map or list of Catch Basins with their GPS coordinates and priority:

Priority A: Catch basins that are designated as consistently generating the highest volumes of trash and/or debris.

Priority B: Catch basins that are designated as consistently generating moderate volumes of trash and/or debris.

Priority C: Catch basins that are designated as generating low volumes of trash and/or debris.

The map or list shall contain the rationale or data to support priority designations.

(2) In areas that are not subject to a trash TMDL, the City of Long Beach shall inspect catch basins according to the following schedule:

Priority A: A minimum of 3 times during the wet season (October 1 through April 15) and once during the dry season every year.

Priority B: A minimum of once during the wet season and once during the dry season every year.

Priority C: A minimum of once per year.

Catch basins shall be cleaned as necessary on the basis of inspections. At a minimum, the City shall ensure that any catch basin that is determined to be at least 25% full of trash shall be cleaned out. the City shall maintain inspection and cleaning records for Regional Water Board review.

(3) In areas that are subject to a trash TMDL, the City of Long Beach shall implement the applicable provisions in Part VIII.

iv. Trash Management at Public Events

(1) The City of Long Beach shall require the following measures for any event in the public right of way or wherever it is foreseeable that substantial quantities of trash and litter may be generated, including events located in areas that are subject to a trash TMDL:

(a) Proper management of trash and litter generated; and

(b) Arrangement for temporary screens to be placed on catch basins; or

(c) Provide clean out of catch basins, trash receptacles, and grounds in the event area within one business day subsequent to the event.

v. Trash Receptacles

(1) The City of Long Beach shall ensure trash receptacles, or equivalent trash capturing devices, are covered in areas newly identified as high trash generation areas within its jurisdiction.

(2) The City of Long Beach shall ensure that all trash receptacles are cleaned out and maintained as necessary to prevent trash overflow.

vi. Catch Basin Labels and Open Channel Signage

(1) The City of Long Beach shall label all storm drain inlets that they own with a legible "no dumping" message.

(2) The City of Long Beach shall inspect the legibility of the stencil or label nearest each inlet prior to the wet season every year.

(3) The City of Long Beach shall record all catch basins with legible stencils and re-stencil or re-label within 180 days of inspection.

(4) The City of Long Beach shall post signs, referencing local code(s) that prohibit littering and illegal dumping, at designated public access points to open channels, creeks, urban lakes, and other relevant water bodies.

vii. Additional Trash Management Practices

(1) In areas that are not subject to a trash TMDL, the City of Long Beach shall install trash excluders, or equivalent devices, on or in catch basins or outfalls to prevent the discharge of trash to the MS4 or receiving water no later than four years after the effective date of this Order in areas defined as Priority A, Part VII.L.8.iii(1), except at sites where the application of such BMP(s) alone will cause flooding. Lack of maintenance that causes flooding is not an acceptable exception to the requirement to install BMPs. Alternatively, the City of Long Beach may implement alternative or enhanced BMPs beyond the provisions of this Order (such as but not limited to increased street sweeping, adding trash cans near trash

generation sites, prompt enforcement of trash accumulation, increased trash collection on public property, increased litter prevention messages or trash nets within the MS4) that provide substantially equivalent removal of trash. The City of Long Beach shall demonstrate that BMPs, which substituted for trash excluders, provide equivalent trash removal performance as excluders. When outfall trash capture is provided, revision of the schedule for inspection and cleanout of catch basins in Part VII.L.8.iii(2) shall be reported in the next year's annual report.

viii. Storm Drain Maintenance

The City of Long Beach shall implement a program for Storm Drain Maintenance that includes the following:

(1) Visual monitoring of open channels and other drainage structures with City boundaries for trash and debris at least annually.

(2) Removal of trash and debris from open channels a minimum of once per year before the wet season.

(3) Elimination of the discharge of contaminants during MS4 maintenance and clean outs.

(4) Proper disposal of debris and trash removed during storm drain maintenance.

ix. Infiltration from Sanitary Sewer to MS4/Preventive Maintenance

(1) The City of Long Beach shall implement controls and measures to prevent and eliminate infiltration of seepage from sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4.

(2) The City of Long Beach that operates both a municipal sanitary sewer system and a MS4 must implement controls and measures to prevent and eliminate infiltration of seepage from the sanitary sewers to the MS4s that must include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both. Implementation of a Sewer System Management Plan in accordance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, may be used to fulfill this requirement.

(3) The City of Long Beach shall implement controls to limit infiltration of seepage from sanitary sewers to the MS4 where necessary. Such controls must include:

(a) Adequate plan checking for construction and new development;

(b) Incident response training for its municipal employees that identify sanitary sewer spills;

(c) Code enforcement inspections;

(d) MS4 maintenance and inspections;

(e) Interagency coordination with sewer agencies; and

(f) Proper education of its municipal staff and contractors conducting field operations on the MS4 or its municipal sanitary sewer (if applicable).

x. Discharger Owned Treatment Control BMPs

(1) The City of Long Beach shall implement an inspection and maintenance program for all Discharger owned treatment control BMPs, including post-construction treatment control BMPs.

(2) The City of Long Beach shall ensure proper operation of all treatment control BMPs and maintain them as necessary for proper operation, including all post-construction treatment control BMPs.

(3) Any residual water[27] produced by a treatment control BMP and not being internal to the BMP performance when being maintained shall be:

(a) Hauled away and legally disposed of; or

(b) Applied to the land without runoff; or

(c) Discharged to the sanitary sewer system (with permits or authorization); or

(d) Treated or filtered to remove bacteria, sediments, nutrients, and meet the limitations set in Table 18 (Discharge Limitations for Dewatering Treatment BMPs), prior to discharge to the MS4.

Table 18. Discharge Limitations for Dewatering Treatment BMPs [27]

Parameter	Units	Limitation
Total Suspended Solids	mg/L	100
Turbidity	NTU	50
Oil and Grease	mg/L	10

9. Streets, Roads, and Parking Facilities Maintenance

i. The City of Long Beach shall designate streets and/or street segments within its jurisdiction as one of the following:

Priority A: Streets and/or street segments that are designated as consistently generating the highest volumes of trash and/or debris.

Priority B: Streets and/or street segments that are designated as consistently generating moderate volumes of trash and/or debris.

Priority C: Streets and/or street segments that are designated as generating low volumes of trash and/or debris.

ii. The City of Long Beach shall perform street sweeping of curbed streets according to the following schedule:

Priority A: Streets and/or street segments that are designated as Priority A shall be swept at least two times per month.

Priority B: Streets and/or street segments that are designated as Priority B shall be swept at least once per month.

[27] See Attachment A.

Priority C: Streets and/or street segments that are designated as Priority C shall be swept as necessary but in no case less than once per year.

iii. Road Reconstruction

The City of Long Beach shall require for each and any project that includes roadbed or street paving, repaving, patching, dig-outs, or roadbed resurfacing, the following BMPs be implemented:

(1) Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall[28] unless required by emergency conditions.

(2) Install sand bags or gravel bags and filter fabric at all susceptible storm drain inlets and at manholes to prevent spills of paving products and tack coat;

(3) Prevent the discharge of release agents including soybean oil, other oils, or diesel into the MS4 or receiving waters.

(4) Prevent non-storm water runoff from water use for the roller and for evaporative cooling of the asphalt.

(5) Clean equipment over absorbent pads, drip pans, plastic sheeting or other material to capture all spillage and dispose of properly.

(6) Collect liquid waste in a container, with a secure lid, for transport to a maintenance facility to be reused, recycled or disposed of properly.

(7) Collect solid waste by vacuuming or sweeping and securing in an appropriate container for transport to a maintenance facility to be reused, recycled or disposed of properly.

(8) Cover the "cold-mix" asphalt (i.e., stockpiled, pre-mixed aggregate and asphalt binder) with protective sheeting during a rainstorm.

(9) Cover loads with tarp before haul-off to a storage site, and do not overload trucks.

(10) Minimize airborne dust by using water spray during grinding.

(11) Avoid stockpiling soil, sand, sediment, asphalt material and asphalt grindings materials or rubble in or near MS4 or receiving waters.

(12) Protect stockpiles with a cover or sediment barriers during a rain.

iv. Parking Facilities Maintenance

(1) City-owned parking lots exposed to storm water shall be kept clear of debris and excessive oil buildup and cleaned no less than 2 times per month and/or inspected no less than 2 times per month to determine if cleaning is necessary. In no case shall a City-owned parking lot be cleaned less than once a month.

10. Emergency Procedures

i. The City of Long Beach may conduct repairs of essential public service systems and infrastructure in emergency situations with a self-waiver of the provisions of this Order as follows:

[28] A probability of precipitation (POP) of 50% is required.

(1) The City of Long Beach shall abide by all other regulatory requirements, including notification to other agencies as appropriate.

(2) Where the self-waiver has been invoked, the City of Long Beach shall submit to the Regional Water Board Executive Officer a statement of the occurrence of the emergency, an explanation of the circumstances, and the measures that were implemented to reduce the threat to water quality, no later than 30 business days after the situation of emergency has passed.

(3) Minor repairs of essential public service systems and infrastructure in emergency situations (that can be completed in less than one week) are not subject to the notification provisions. Appropriate BMPs to reduce the threat to water quality shall be implemented.

11. Municipal Employee and Contractor Training

i. The City of Long Beach shall, no later than 1 year after Order adoption and annually thereafter before June 30, train all of their employees in targeted positions (whose interactions, jobs, and activities affect storm water quality) on the requirements of the overall storm water management program, or shall ensure contractors performing privatized/contracted municipal services are appropriately trained to:

(1) Promote a clear understanding of the potential for activities to pollute storm water.

(2) Identify opportunities to require, implement, and maintain appropriate BMPs in their line of work.

Outside contractors can self-certify, providing they certify they have received all applicable training required in the Permit and have documentation to that effect.

ii. The City of Long Beach shall, no later than 1 year after Order adoption and annually thereafter before June 30, train all of their employees and contractors who use or have the potential to use pesticides or fertilizers (whether or not they normally apply these as part of their work). Training programs shall address:

(1) The potential for pesticide-related surface water toxicity.

(2) Proper use, handling, and disposal of pesticides.

(3) Least toxic methods of pest prevention and control, including IPM.

(4) Reduction of pesticide use.

iii. Outside contractors can self-certify, providing they certify they have received all applicable training required in the Permit and have documentation to that effect.

M. Illicit Connections and Illicit Discharges Elimination Program

1. General

i. The City of Long Beach shall continue to implement an Illicit Connection and Illicit Discharge Elimination (IC/ID) Program to detect, investigate, and eliminate IC/IDs to the MS4. The IC/ID Program must be implemented in

accordance with the requirements and performance measures specified in this Order.

ii. As stated in Part VII.B of this Order, the City of Long Beach must have adequate legal authority to prohibit IC/IDs to the MS4 and enable enforcement capabilities to eliminate the source of IC/IDs.

iii. The City of Long Beach's IC/ID Program shall consist of at least the following major program components:

(1) Procedures for conducting source investigations for IC/IDs

(2) Procedures for eliminating the source of IC/IDs

(3) Procedures for public reporting of illicit discharges

(4) Spill response plan

(5) IC/IDs education and training for City staff

2. Illicit Discharge Source Investigation and Elimination

i. The City of Long Beach shall develop written procedures for conducting investigations to identify the source of all suspected illicit discharges, including procedures to eliminate the discharge once the source is located.

ii. At a minimum, the City of Long Beach shall initiate an investigation(s) to identify and locate the source within 72 hours of becoming aware of the illicit discharge.

iii. When conducting investigations, the City of Long Beach shall comply with the following:

(1) Illicit discharges suspected of being sanitary sewage and/or significantly contaminated shall be investigated first.

(2) The City of Long Beach shall track all investigations to document at a minimum the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.

(3) The City of Long Beach shall investigate the source of all observed illicit discharges.

iv. When taking corrective action to eliminate illicit discharges, the City of Long Beach shall comply with the following:

(1) If the source of the illicit discharge has been determined to originate within the City of Long Beach's jurisdiction, the City of Long Beach shall immediately notify the responsible party/parties of the problem, and require the responsible party to initiate all necessary corrective actions to eliminate the illicit discharge. Upon being notified that the discharge has been eliminated, the City of Long Beach shall conduct a follow-up investigation to verify that the discharge has been eliminated and cleaned-up to the satisfaction of the City of Long Beach. The City of Long Beach shall document its follow-up investigation. The City of Long Beach may seek recovery and remediation costs from responsible parties or require compensation for the cost of all inspection, investigation, cleanup and

oversight activities. Resulting enforcement actions shall follow the program's Progressive Enforcement Policy, per Part VII.D.2.

(2) If the source of the illicit discharge has been determined to originate within an upstream jurisdiction, the City of Long Beach shall notify the upstream jurisdiction and the Regional Water Board within 30 days of such determination and provide all of the information collected regarding efforts to identify its source. The City of Long Beach may seek recovery and remediation costs from responsible parties or require compensation for the cost of all inspection, investigation, cleanup and oversight activities. Resulting enforcement actions shall follow the program's Progressive Enforcement Policy, per Part VII.D.2.

(3) If the source of the illicit discharge cannot be traced to a suspected responsible party, the City shall implement its spill response plan and then initiate a permanent solution as described in Part VII.M.2.v below.

v. In the event the City of Long Beach is unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, including the inability to find the responsible party/parties, the City of Long Beach shall provide for diversion of the entire flow to the sanitary sewer or provide treatment. In either instance, the City of Long Beach shall notify the Regional Water Board in writing within 30 days of such determination and shall provide a written plan for review and comment that describes the efforts that have been undertaken to eliminate the illicit discharge, a description of the actions to be undertaken, anticipated costs, and a schedule for completion.

3. Identification and Response to Illicit Connections

i. Investigation

The City of Long Beach, upon discovery or upon receiving a report of a suspected illicit connection, shall initiate an investigation within 21 days, to determine the following: (1) source of the connection, (2) nature and volume of discharge through the connection, and (3) responsible party for the connection.

ii. Elimination

The City of Long Beach, upon confirmation of an illicit MS4 connection, shall ensure that the connection is:

(1) Permitted or documented, provided the connection will only discharge storm water and non-storm water allowed under this Order or other individual or general NPDES Permits/WDRs, or

(2) Eliminated within 180 days of completion of the investigation, using its formal enforcement authority, if necessary, to eliminate the illicit connection.

iii. Documentation

Formal records must be maintained for all illicit connection investigations and the formal enforcement taken to eliminate illicit connections.

4. **Public Reporting of Non-Storm Water Discharges and Spills**

   i. The City of Long Beach shall promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers and an internet site for complaints and spill reporting. The City of Long Beach shall also provide the reporting hotline to City staff to leverage the field staff that has direct contact with the MS4 in detecting and eliminating illicit discharges.

   ii. The City of Long Beach shall implement the central point of contact and reporting hotline requirements listed in this part in one or more of the following methods:

   (1) By participating in a County-wide sponsored hotline

   (2) By participating in one or more Watershed Group sponsored hotlines

   (3) Or individually within its own jurisdiction

   (4) The City of Long Beach shall continue to maintain the 562-570-DUMP hotline to promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s.

   iii. The City of Long Beach shall ensure that signage adjacent to open channels, as required in Part VII.L.8.vi, includes information regarding dumping prohibitions and public reporting of illicit discharges.

   iv. The City of Long Beach shall develop and maintain written procedures that document how complaint calls are received, documented, and tracked to ensure that all complaints are adequately addressed. The procedures shall be evaluated to determine whether changes or updates are needed to ensure that the procedures accurately document the methods employed by the City of Long Beach. Any identified changes shall be made to the procedures subsequent to the evaluation.

   v. The City of Long Beach shall maintain documentation of the complaint calls and record the location of the reported spill or IC/ ID and the actions undertaken in response to all IC/ID complaints, including referrals to other agencies.

5. **Spill Response Plan**

   i. The City of Long Beach shall implement a spill response plan for all sewage and other spills that may discharge into its MS4. The spill response plan shall clearly identify agencies responsible for spill response and cleanup, telephone numbers and e-mail address for contacts, and shall contain at a minimum the following requirements:

   (1) Coordination with spill response teams throughout all appropriate departments, programs and agencies so that maximum water quality protection is provided.

   (2) Initiate investigation of all public and employee spill complaints within one business day of receiving the complaint to assess validity.

   (3) Response to spills for containment within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case

the response should be within 2 hours of gaining legal access to the property.

(4) Spills that may endanger health or the environment shall be reported to appropriate public health agencies and the Office of Emergency Services (OES).

6. Illicit Connection and Illicit Discharge Education and Training

i. The City of Long Beach must continue to implement a training program regarding the identification of IC/IDs for all municipal field staff, who, as part of their normal job responsibilities (e.g., street sweeping, storm drain maintenance, collection system maintenance, road maintenance), may come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4. Contact information, including the procedure for reporting an illicit discharge, must be readily available to field staff. Training program documents must be available for review by the permitting authority.

ii. The City of Long Beach shall ensure contractors performing privatized/contracted municipal services such as, but not limited to, storm and/or sanitary sewer system inspection and repair, street sweeping, trash pick-up and disposal, and street and right-of-way construction and repair are trained regarding IC/ID identification and reporting. The City may provide training or include contractual requirements for IC/ID identification and reporting training. Outside contractors can self-certify, providing they certify they have received all applicable training required in the Permit and have documentation to that effect.

iii. The City of Long Beach's training program should address, at a minimum, the following:

(1) IC/ID identification, including definitions and examples,

(2) investigation,

(3) elimination,

(4) cleanup,

(5) reporting, and

(6) documentation.

iv. The City of Long Beach must create a list of applicable positions and contractors which require IC/ID training and ensure that training is provided at least twice during the term of the Order. The City of Long Beach must maintain documentation of the training activities.

v. New City of Long Beach staff members must be provided with IC/ID training within 180 days of starting employment.

VIII. Total Maximum Daily Loads

A. General

1. The provisions of this Part implement and are consistent with the assumptions and requirements of all available waste load allocations (WLAs) assigned to MS4 discharges established in TMDLs that are wholly or in part the responsibility of the City of Long Beach.

2. The provisions in this Part are designed to ensure the City of Long Beach will achieve WLAs and meet other requirements of TMDLs covering receiving waters impacted by MS4 discharges from the City of Long Beach.
3. The City of Long Beach shall comply with the applicable water quality-based effluent limitations and/or receiving water limitations contained in this Part, consistent with the assumptions and requirements of the WLAs established in the TMDLs, including implementation plans and schedules, where provided for in the State adoption and approval of the TMDL (40 CFR §122.44(d)(1)(vii)(B); Cal. Wat. Code §13263(a)).
4. The City of Long Beach may comply with water quality-based effluent limitations and receiving water limitations using any lawful means.

B. Compliance Determination

1. The City of Long Beach shall demonstrate compliance at compliance monitoring points established in each TMDL or, if not specified in the TMDL, at locations identified in an approved TMDL monitoring plan or in accordance with an approved integrated monitoring program per Attachment E, Part IX.D.16 (Integrated Watershed Monitoring and Assessment).

2. Compliance with water quality-based effluent limitations shall be determined as described in Part VIII.E-F or as otherwise set forth in TMDL specific provisions in this Part.

3. Pursuant to Part VII.C the City of Long Beach may, individually or as part of a watershed-based group, develop and submit for approval by the Regional Water Board Executive Officer a Watershed Management Program that addresses all water quality-based effluent limitations and receiving water limitations to which the City of Long Beach is subject pursuant to established TMDLs.

C. Commingled Discharges

1. A number of the TMDLs establish WLAs that are assigned jointly to a group of Permittees whose storm water and/or non-storm water discharges are or may be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL.

2. In these cases, pursuant to 40 CFR section 122.26(a)(3)(vi), the City of Long Beach is only responsible for discharges from the MS4 it owns and/or operates.

3. Where the City of Long Beach has commingled discharges to the receiving water, compliance at the outfall to the receiving water or in the receiving water shall be determined for the group of Permittees as a whole unless the City of Long Beach demonstrates that its discharge did not cause or contribute to the exceedance, pursuant to Part VIII.C.5 below.

4. For purposes of compliance determination, the City of Long Beach is responsible for demonstrating that its discharge did not cause or contribute to an exceedance of an applicable water quality-based effluent limitation(s) at the outfall or receiving water limitation(s) in the target receiving water.

5. The City of Long Beach may demonstrate that its discharge did not cause or contribute to an exceedance of an applicable water quality-based effluent limitation or receiving water limitation in any of the following ways:

   a. Demonstrate that there is no discharge from the City of Long Beach's MS4 into the applicable receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation; or

   b. Demonstrate that the discharge from the City of Long Beach's MS4 is controlled to a level that does not exceed the applicable water quality-based effluent limitation; or

   c. For exceedances of bacteria receiving water limitations or water quality-based effluent limitations, demonstrate through a source investigation pursuant to protocols established under California Water Code Section 13178 or for exceedances of other receiving water limitations or water quality-based effluent limitations, demonstrate using other accepted source identification protocols, that pollutant sources within the jurisdiction of the City of Long Beach or the City of Long Beach's MS4 have not caused or contributed to the exceedance of the receiving water limitation(s).

D. Receiving Water Limitations Addressed by a TMDL

1. For receiving water limitations in Part VI.A associated with water body-pollutant combinations addressed in a TMDL, the City of Long Beach shall achieve compliance with the receiving water limitations in Part VI.A as outlined in this Part VIII of this Order.

2. The City of Long Beach's full compliance with the applicable TMDL requirement(s), including compliance schedules, of this Part VIII constitutes compliance with Part VI.A of this Order for the specific pollutant addressed in the TMDL.

3. As long as the City of Long Beach is in compliance with the applicable TMDL requirements in a time schedule order (TSO) issued by the Regional Water Board pursuant to California Water Code Sections 13300 and 13385(j)(3), it is not the Regional Water Board's intention to take an enforcement action for violations of Part VI.A of this Order for the specific pollutant(s) addressed in the TSO.

E. Interim Water Quality-Based Effluent Limitations and Receiving Water Limitations

1. The City of Long Beach shall be considered in compliance with an applicable interim water quality-based effluent limitation and interim receiving water limitation for a pollutant associated with a specific TMDL if any of the following is demonstrated:

   a. There are no violations of the interim water quality-based effluent limitation for the pollutant associated with a specific TMDL at the City of Long Beach's applicable MS4 outfall(s),[29] including an outfall to the receiving water that collects discharges from multiple Dischargers' jurisdictions;

[29] An outfall may include a manhole or other point of access to the MS4 at the Permittee's jurisdictional boundary.

b. There are no exceedances of the applicable receiving water limitation for the pollutant associated with a specific TMDL in the receiving water(s) at, or downstream of, the City of Long Beach's outfall(s);

c. There is no direct or indirect discharge from the City of Long Beach's MS4 to the receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation for the pollutant associated with a specific TMDL; or

d. The City of Long Beach has submitted and is fully implementing an approved WMP or EWMP pursuant to Part VII.C.

i. To be considered fully implementing an approved WMP or EWMP, the City of Long Beach must be implementing all actions consistent with the approved program and applicable compliance schedules, including structural BMPs.

ii. Structural storm water BMPs or systems of BMPs should be designed and maintained to treat storm water runoff from the 85th percentile, 24-hour storm, where feasible and necessary to achieve applicable WQBELs and receiving water limitations, and maintenance records must be up-to-date and available for inspection by the Regional Water Board.

iii. If the City of Long Beach does not implement the WMP in accordance with the milestones and compliance schedules, the City shall demonstrate compliance with its interim water quality-based effluent limitations and/or receiving water limitations pursuant to Part VIII.E.1.a-c above.

iv. Upon notification of the City of Long Beach's intent to develop a WMP or EWMP and prior to approval of its WMP or EWMP, the City of Long Beach's full compliance with all of the following requirements shall constitute the City of Long Beach's compliance with provisions pertaining to interim WQBELs with compliance deadlines occurring prior to approval of a WMP or EWMP. This subdivision d shall not apply to interim trash WQBELs.

(1) Provides timely notice of its intent to develop a WMP or EWMP,

(2) Meets all interim and final deadlines for development of a WMP or EWMP,

(3) For the area to be covered by the WMP or EWMP, targets implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges of pollutants through the MS4 to receiving waters, to address known contributions of pollutants from MS4 discharges that cause or contribute to the impairment(s) addressed by the TMDL(s), and

(4) Receives final approval of its WMP or EWMP within the applicable timeframe in Table 8, respectively.

F. Final Water Quality-based Effluent Limitations and/or Receiving Water Limitations

1. The City of Long Beach shall be deemed in compliance with an applicable final water quality-based effluent limitation and final receiving water limitation for the pollutant(s) associated with a specific TMDL if any of the following is demonstrated:

   a. There are no violations of the final water quality-based effluent limitation for the specific pollutant at the City of Long Beach's applicable MS4 outfall(s)[30];

   b. There are no exceedances of applicable receiving water limitation for the specific pollutant in the receiving water(s) at, or downstream of, the City of Long Beach's outfall(s);

   c. There is no direct or indirect discharge from the City of Long Beach's MS4 to the receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation for the pollutant(s) associated with a specific TMDL; or

   d. In drainage areas where the City is implementing an EWMP, (i) all non-storm water and (ii) all storm water runoff up to and including the volume equivalent to the 85th percentile, 24-hour event is retained for the drainage area tributary to the project. This provision (iv) shall not apply to final trash WQBELs.

G. US EPA Established TMDLs

1. TMDLs established by the US EPA, to which the City of Long Beach is subject, do not contain an implementation plan adopted pursuant to California Water Code Section 13242. However, US EPA has included implementation recommendations as part of these TMDLs. In lieu of inclusion of numeric water quality based effluent limitations at this time, this Order requires the City of Long Beach, where subject to WLAs in US EPA established TMDLs, to propose and implement best management practices (BMPs) that will be effective in achieving compliance with US EPA established numeric WLAs. The Regional Water Board may, at its discretion, revisit this decision within the term of this Order or in a future permit, as more information is developed to support the inclusion of numeric water quality based effluent limitations.

   a. The City of Long Beach shall propose BMPs to achieve the WLAs contained in the applicable US EPA established TMDL(s), and a schedule for implementing the BMPs that is as short as possible, in a WMP or EWMP.

   b. The City of Long Beach may either individually submit a WMP, or may jointly submit a WMP or EWMP with other Permittees subject to the WLAs contained in the US EPA established TMDL.

[30] Ibid.

c. At a minimum, the City of Long Beach shall include the following information in its Watershed Management Program or EWMP, relevant to each applicable US EPA established TMDL:

i. Available data demonstrating the current quality of the City of Long Beach's MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;

ii. A detailed description of BMPs that have been implemented, and/or are currently being implemented by the City of Long Beach to achieve the WLA(s), if any;

iii. A detailed time schedule of specific actions the City of Long Beach will take in order to achieve compliance with the applicable WLA(s);

iv. A demonstration that the time schedule requested is as short as possible, taking into account the time since US EPA establishment of the TMDL, and technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the WLA(s);

(1) For the Long Beach City Beaches Bacteria TMDL established by US EPA in 2012, for all locations with the exception of the Los Angeles River Estuary, in no case shall the time schedule to achieve the final numeric WLAs during dry weather exceed five years from the effective date of this Order; and

v. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and numeric milestones and the date(s) for their achievement.

d. For the TMDLs established by US EPA, the City of Long Beach shall submit a draft of a WMP or EWMP to the Regional Water Board Executive Officer for approval per the schedule in Table 8.

e. If the City of Long Beach does not submit a WMP, or the plan is determined to be inadequate by the Regional Water Board Executive Officer and the City of Long Beach does not make the necessary revisions within 90 days of written notification that plan is inadequate, the City of Long Beach shall be required to demonstrate compliance with the numeric WLAs immediately based on monitoring data collected under the MRP (Attachment E) for this Order.

H. State Adopted TMDLs where Final Compliance Deadlines have Passed

1. The City of Long Beach shall comply immediately with water quality-based effluent limitations and/or receiving water limitations to implement WLAs in state-adopted TMDLs for which final compliance deadlines have passed pursuant to the TMDL implementation schedule.

2. If the City of Long Beach believes that additional time to comply with the final water quality-based effluent limitations and/or receiving water limitations is

necessary, the City of Long Beach may request a time schedule order pursuant to California Water Code section 13300 for the Regional Water Board's consideration.

3. The City of Long Beach may either individually request a TSO, or may jointly request a TSO with all other Permittees subject to the water quality-based effluent limitations and/or receiving water limitations, to implement the WLAs in the state-adopted TMDL.

4. At a minimum, a request for a time schedule order shall include the following:

   i. Data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;

   ii. A detailed description and chronology of structural controls and source control efforts, since the effective date of the TMDL, to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;

   iii. Justification of the need for additional time to achieve the water quality-based effluent limitations and/or receiving water limitations;

   iv. A detailed time schedule of specific actions the City of Long Beach will take in order to achieve the water quality-based effluent limitations and/or receiving water limitations;

   v. A demonstration that the time schedule requested is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation(s); and

   vi. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and the date(s) for their achievement. The interim requirements shall include both of the following:

      (1) Effluent limitation(s) for the pollutant(s) of concern; and

      (2) Actions and milestones leading to compliance with the effluent limitation(s).

I. Colorado Lagoon OC Pesticides, PAHs, PCBs, Metals and Sediment Toxicity TMDL

1. The City of Long Beach shall comply with the following interim water quality-based effluent limitations as of the effective date of this Order, for sediments within Colorado Lagoon:

Table 19. Colorado Lagoon Interim Water Quality-based Effluent Limitations

Constituent	Interim Concentration-based Effluent Limitations Monthly Average (µg/dry kg)
Chlordane	129.65
Dieldrin	26.20
Lead	399,500
Zinc	565,000
PAHs	4,022
PCBs	89.90
DDT	149.80

2. The City of Long Beach shall comply with the following final water quality-based effluent limitations no later than July 28, 2018, for sediments within Colorado Lagoon:

Table 20. Colorado Lagoon Final Water Quality-based Effluent Limitations

Constituent	Final Concentration Based Effluent Limitations Monthly Average (µg/dry kg)
Chlordane	0.50
Dieldrin	0.02
Lead	46,700
Zinc	150,000
PAHs	4,022
PCBs	22.70
DDT	1.58

3. The mass-based water quality-based effluent limitations are shared by MS4 Permittees, which includes the City of Long Beach along with LACFCD and Caltrans. The City of Long Beach shall comply with the following grouped final water quality-based effluent limitations no later than July 28, 2018, expressed as an annual discharge of sediment to Colorado Lagoon:

4. Compliance with the concentration-based water quality-based effluent limitations shall be determined by pollutant concentrations in the sediment in Colorado Lagoon at points in the West Arm, North Arm and Central Arm that represent the cumulative inputs from the MS4 drainage to the lagoon.

Table 21. Colorado Lagoon Annual Mass-based Effluent Limitations

Constituent	Annual Mass-based Effluent Limitations (mg/yr)				
	Project 452	Line I	Termino Ave	Line K	Line M
Chlordane	5.10	3.65	12.15	1.94	0.73
Dieldrin	0.20	0.15	0.49	0.08	0.03
Lead	476,646.68	340,455.99	1,134,867.12	181,573.76	68,116.09
Zinc	1,530,985.05	1,093,541.72	3,645,183.47	583,213.37	218,788.29
PAHs	41,050.81	29,321.50	97,739.52	15,637.89	5,866.44
PCBs	231.69	165.49	551.64	88.26	33.11
DDT	16.13	11.52	38.40	6.14	2.30

J. Los Cerritos Channel Metals TMDL (USEPA established)

1. The City of Long Beach shall comply with the following dry weather[31] WLAs, expressed as total recoverable metals discharged to Los Cerritos Channel, per the provisions in Part VIII.G:

Table 22. Los Cerritos Channel Dry Weather Waste Load Allocations

Constituent	WLA Daily Maximum (g/day)
Copper	41.4

2. The City of Long Beach shall comply with the following wet weather[32] WLA, expressed as total recoverable metals discharged to Los Cerritos Channel, per the provisions in Part VIII.G:

Table 23. Los Cerritos Channel Wet Weather Waste Load Allocations

Constituent	WLA Daily Maximum (g/day)
Copper	2.904×10^{-6} x daily storm volume (L)
Lead	16.560×10^{-6} x daily storm volume (L)
Zinc	28.385×10^{-6} x daily storm volume (L)

[31] Dry weather is defined as any day when the maximum daily flow in Los Cerritos Channel is less than 23 cubic feet per second (cfs) measured at Stearns Street Monitoring Station.

[32] Wet weather is defined as any day when the maximum daily flow in Los Cerritos Channel is equal to or greater than 23 cfs measured at Stearns Street Monitoring Station.

K. Beach City Beaches and Los Angeles River Estuary TMDLs for Indicator Bacteria (USEPA established)

1. The City of Long Beach shall comply with the following final WLAs per the provisions in Part VIII.G:

Table 24.Long Beach City Beaches and Los Angeles River Estuary Final Waste Load Allocations

Constituent	WLA (MPN or cfu)	
	Daily Maximum	Geometric Mean
Total coliform*	10,000/100 mL	1,000/100 mL
Fecal coliform	400/100 mL	200/100 mL
Enterococcus	104/100 mL	35/100 mL

* Total coliform density shall not exceed a daily maximum of 1,000/100 mL, if the ratio of fecal-to-total coliform exceeds 0.1.

2. **Receiving Water Limitations**
The City of Long Beach shall comply with the following geometric mean receiving water limitations for all compliance monitoring locations per the provisions in Part VIII.G:

Table 25. Long Beach City Beaches and Los Angeles River Estuary Geometric Mean Receiving Water Limitations

Constituent	Geometric Mean (MPN or cfu)
Total coliform	1,000/100 mL
Fecal coliform	200/100 mL
Enterococcus	35/100 mL

The City of Long Beach shall comply with the following final single sample bacteria WLAs per the provisions of Part VIII.G:

Table 26. Allowable Exceedance Days of the Single Sample Maximum for Daily and Weekly Sampling

Site Id	Monitoring Location	Summer Dry*		Winter Dry*		Wet	
		Daily	Weekly	Daily	Weekly	Daily	Weekly
LARE	LA River Estuary	0	0	9	2	17	3
B63	Long Beach City Beach 3rd Place	0	0	9	2	17	3
B5	Long Beach City Beach Projection	0	0	9	2	17	3

Site Id	Monitoring Location	Summer Dry*		Winter Dry*		Wet	
		Daily	Weekly	Daily	Weekly	Daily	Weekly
	of 5th Place						
B56	Long Beach City Beach projection of 10th Place	0	0	9	2	17	3
B6	Long Beach City Beach projection of 16th Place	0	0	9	2	17	3
B60	Long Beach City Beach Projection of Molino Ave	0	0	9	2	17	3
B7	Long Beach City Beach Projection of Coronado Ave	0	0	9	2	17	3
B62	Long Beach City Beach Projection of 36th Place	0	0	9	2	17	3
B8	LBCB – W/side of Belmont Pier	0	0	9	2	17	3
B3	LBCB – E/side of Belmont Pier	0	0	9	2	17	3
B9	Long Beach City Beach Projection of Prospect Ave	0	0	9	2	17	3
B64	Long Beach City Beach Projection of Granada Ave	0	0	7	1	17	3
B65	Long Beach City Beach Projection of 54th Place	0	0	6	1	17	3
B10	Long Beach City Beach Projection of 55th Place	0	0	5	1	17	3

Site Id	Monitoring Location	Summer Dry*		Winter Dry*		Wet	
		Daily	Weekly	Daily	Weekly	Daily	Weekly
B66	Long Beach City Beach Projection of 62nd Place	0	0	7	1	17	3
B11	Long Beach City Beach Projection of 72nd Place	0	0	9	2	17	3

L. Los Angeles River Metals TMDL

1. Final Water Quality-Based Effluent Limitations

a. The watershed is divided into five jurisdictional groups based on the subwatersheds of the tributaries that drain to each reach of the river. Each jurisdictional group shall achieve compliance in prescribed percentages of its subwatershed(s). Jurisdictional groups can be reorganized or subdivided upon approval by the Regional Water Board Executive Officer.

b. The City of Long Beach shall comply with the following grouped[33] dry weather[34] water quality-based effluent limitations no later than January 11, 2024, expressed as total recoverable metals.[35]

Table 27. Los Angeles River Grouped Dry Weather Water Quality-based Effluent Limitations

Waterbody	Effluent Limitations Daily Maximum (kg/day)		
	Copper	Lead	Zinc
LA River Reach 2	WER[1] x 0.13	WER[1] x 0.07	---
LA River Reach 1	WER[1] x 0.14	WER[1] x 0.07	---
Compton Creek	WER[1] x 0.04	WER[1] x 0.02	---

WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

c. In lieu of calculating loads, the City of Long Beach may demonstrate compliance with the following concentration-based water quality-based effluent limitations during dry weather no later than January 11, 2024, expressed as total recoverable metals:

[33] The dry weather water quality-based effluent limitations are grouped-based and shared by the MS4 Permittees that are located within the drainage area.

[34] Dry weather is defined as any day when the maximum daily flow in the Los Angeles River is less than 500 cfs measured at the Wardlow gage station.

[35] Dry weather effluent limitations are equal to storm drain flows (critical flows minus median POTW flows minus median open space flows) multiplied by reach specific numeric targets, minus the contribution from direct air deposition.

Table 28. Los Angeles River Concentration-based Water Quality-based Effluent Limitations

Waterbody	Effluent Limitations Daily Maximum (µg total recoverable metals/L)		
	Copper	Lead	Zinc [1]
LA River Reach 2	WER[1] x 22	WER[1] x 11	---
LA River Reach 1	WER[1] x 23	WER[1] x 12	---
Compton Creek	WER[1] x 19	WER[1] x 8.9	---

[1] WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

d. The City of Long Beach shall comply with the following grouped[36] wet weather[37] water quality-based effluent limitations no later than January 11, 2028, expressed as total recoverable metals discharged to all reaches of the Los Angeles River and its tributaries.

Table 29. Los Angeles River Metals TMDL Grouped Wet Weather Water Quality-based Effluent Limitations

Constituent	Effluent Limitation Daily Maximum (kg/day)
Cadmium	WER[1] x 2.8×10^{-9} x daily volume (L) – 1.8
Copper	WER[1] x 1.5×10^{-8} x daily volume (L) – 9.5
Lead	WER[1] x 5.6×10^{-8} x daily volume (L) – 3.85
Zinc	WER[1] x 1.4×10^{-7} x daily volume (L) – 83

[1] WER(s) have a default value of 1.0 unless site-specific WER(s) are approved via the Basin Plan Amendment process.

e. The City of Long Beach shall comply with interim and final water quality-based effluent limitations for metals discharged to the Los Angeles River and its tributaries, per the schedule below:

Table 30. Los Angeles River Metals TMDL Interim and Final Water Quality-based Effluent Limitations Schedule

Deadline	Total Drainage Area Served by the MS4 required to meet water quality-based effluent limitations (%)	
	Dry weather	Wet weather
January 11, 2012	50	25
January 11, 2020	75	--
January 11, 2024	100	50
January 11, 2028	100	100

[36] The wet weather water quality-based effluent limitations are grouped-based and shared among all MS4 Permittees located within the drainage area.

[37] Wet weather is defined as any day when the maximum daily flow in the Los Angeles River is equal to or greater than 500 cfs measured at the Wardlow gage station.

M. Los Angeles River Nitrogen TMDL

1. The City of Long Beach shall comply with the following water quality-based effluent limitations as of the effective date of this Order:

Table 31. Los Angeles River Nitrogen TMDL Water Quality-based Effluent Limitations

Water Body	NH_3-N (mg/L)		NO_3-N (mg/L)	NO_2-N (mg/L)	NO_3-N+NO_2-N (mg/L)
	One-hour Average	Thirty-day Average	Thirty-day Average	Thirty-day Average	Thirty-day Average
Los Angeles River below LA-Glendale WRP	8.7	2.4	8.0	1.0	8.0
Los Angeles Tributaries	10.1	2.3	8.0	1.0	8.0

N. Los Angeles River Bacteria TMDL

1. The City of Long Beach shall comply with the following final water quality-based effluent limitations for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table 36, and during wet weather no later than March 23, 2037:

Table 32. Los Angeles River Bacteria TMDL Final Water Quality-based Effluent Limitations

Constituent	Effluent Limitation (MPN or cfu per 100 mL)	
	Daily Maximum	Geometric Mean
E.coli	235	126

2. The City of Long Beach shall comply with the following grouped[38] interim dry weather single sample bacteria water quality-based effluent limitations for specific river segments and tributaries as listed in the table, below, according to the schedule in Table 36:

Table 33: Los Angeles River Bacteria TMDL Grouped Interim Dry Weather Single Sample Bacteria Water Quality-based Effluent Limitations

River Segment or Tributary	Daily Maximum E. coli Load (10^9 MPN/Day)
Los Angeles River Segment A (Willow to Rosecrans)	301
Compton Creek	7

a. Unexpectedly high-loading outfalls may be excluded from interim compliance calculations under the following circumstances: If an outfall which was 1) loading

[38] The interim dry weather water quality-based effluent limitations are group-based and shared among all MS4 Permittees located within the drainage area. However, the interim dry weather water quality-based effluent limitations may be distributed based on proportional drainage area, upon approval of the Regional Water Board Executive Officer.

E. coli at a rate less than the 25th percentile of outfalls during the monitoring events used to develop the "MS4 Load Reduction Strategy" (LRS), but, at the time of compliance monitoring, is 2) loading E. coli at a rate greater than the 90th percentile of outfalls, and 3) actions are taken prior to the end of the first phase (i.e. 10 years after the beginning of the segment or tributary specific phase) such that the outfall is returned to a loading less than the 50th percentile of the outfalls at compliance monitoring, then the 90th percentile data from the outfall can be excluded from the compliance loading calculations.

b. Likewise, if an outfall which was 1) the subject of a dry weather diversion is found, at the time of compliance monitoring, to be 2) contributing greater than the 90th percentile loading rate, and 3) actions are taken such that the outfall is returned to a loading less than the 50th percentile of the outfalls at compliance monitoring, and a maintenance schedule for the diversion is submitted with the compliance report, then the 90th percentile data from the outfall can be excluded from the compliance loading calculations.

3. Receiving Water Limitations

a. The City of Long Beach shall comply with the following grouped[39] final single sample bacteria receiving water limitations for discharges to the Los Angeles River and its tributaries during dry weather according to the schedule in Table 36, and during wet weather no later than March 23, 2037:

Table 34. Los Angeles River Bacteria TMDL Grouped Final Single Sample Bacteria

Time Period	Annual Allowable Exceedance Days of the Single-sample Objective	
	Daily Sampling	Weekly Sampling
Dry Weather	5	1
Non-HFS[40] Waterbodies Wet Weather	15	2
HFS Waterbodies Wet Weather	10 (not including HFS days)	2 (not including HFS days)

b. The City of Long Beach shall comply with the following geometric mean receiving water limitation for discharges to the segments of the Los Angeles River and its tributaries during dry weather according to the schedule in Table 36, and during wet weather no later than March 23, 2037:

Table 35. Los Angeles River Bacteria TMDL Geometric Mean Receiving Water Limitation

Constituent	Geometric Mean (MPN or cfu)	Allowable Exceedances
E. coli	126/100 mL	0

[39]The final receiving water limitations are group-based and shared among all MS4 Permittees, which includes applicable Permittees covered under the LA County MS4 Permit as well as the City of Long Beach and Caltrans.
[40]HFS stands for high flow suspension as defined in Chapter 2 of the Basin Plan.

Table 36. Los Angeles River Bacteria Implementation Schedule for Dry Weather

Implementation Action	Responsible Parties	Deadline
SEGMENT A (lower Reach 2 and Reach 1 – Rosecrans Avenue to Willow Street)		
First phase – Segment A		
Submit a Load Reduction Strategy (LRS) for Segment A (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment A	September 23, 2016
Complete implementation of LRS	MS4 Permittees discharging to Segment A, if using LRS	March 23, 2021
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Water Board	MS4 Permittees discharging to Segment A, if using LRS	March 23, 2024
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 Permittees discharging to Segment A, if using alternative compliance plan	March 23, 2024
Second phase, if necessary – Segment A for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment A	March 23, 2025
Complete implementation of LRS	MS4 Permittees discharging to Segment A, if using LRS	September 23, 2029
Achieve final water quality-based effluent limitations in Segment A or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 Permittees discharging to Segment A, if using LRS	September 23, 2031
SEGMENT A TRIBUTARY (Compton Creek)		
First phase – Segment A Tributary		
Submit a Load Reduction Strategy (LRS) for Segment A tributary (or submit an alternative compliance plan)	MS4 Permittees discharging to Segment A tributary	March 23, 2018
Complete implementation of LRS	MS4 Permittees discharging to Segment A tributary if using LRS	September 23, 2022
Achieve interim (or final) water quality-based effluent limitations and submit report to Regional Board	MS4 Permittees discharging to Segment A tributary if using LRS	September 23, 2025
Achieve final water quality-based effluent limitations or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 Permittees discharging to Segment A tributary, if using alternative compliance plan	September 23, 2025
Second phase, if necessary – Segment A Tributary for LRS approach only		
Submit a new LRS	MS4 Permittees discharging to Segment A tributary	September 23, 2026
Complete implementation of LRS	MS4 Permittees discharging to Segment A tributary, if using LRS	March 23, 2030
Achieve final water quality-based effluent limitations in Segment A tributary or demonstrate that non-compliance is due to upstream contributions and submit report to Regional Board	MS4 Permittees discharging to Segment A tributary, if using LRS	March 23, 2032

4. **Compliance**

   a. The City of Long Beach may demonstrate compliance with the final dry weather limitations by demonstrating that final receiving water limitations are met in the receiving waters or by demonstrating one of the following conditions at outfalls to the receiving waters:

      i. Flow-weighted concentration of *E. coli* in MS4 discharges during dry weather is less than or equal to 235 MPN/100mL, based on a weighted-average using flow rates from all measured outfalls; or

      ii. Zero discharge during dry weather.

   b. In addition, the City of Long Beach may differentiate their dry weather discharges from other dischargers or upstream contributions by demonstrating one of the following conditions at outfalls to the receiving waters or at segment, tributary or jurisdictional boundaries:

      i. The flow-weighted concentration of E. coli in the City's individual discharge or in a group of Permittees' collective discharge during dry weather is less than or equal to 235 MPN/100mL, based on a weighted-average using flow rates from all measured outfalls; or

      ii. Zero discharge from the City's individual outfall(s) or from a group of Permittees' outfall(s) during dry weather; or

      iii. Demonstration that the MS4 loading of E. coli to the segment or tributary during dry weather is less than or equal to the calculated loading rate that would not cause or contribute to exceedances based on the loading capacity representative of conditions in the River at the time of compliance.

   c. The interim dry weather water quality-based effluent limitations are group-based, shared among all MS4 Permittees that drain to a segment or tributary. However, the interim dry weather water quality-based effluent limitations may be distributed based on proportional drainage area, upon approval of the Regional Water Board Executive Officer.

O. Los Angeles River Trash TMDL

1. The City of Long Beach shall comply with the final water quality-based effluent limitation of zero trash discharged to the Los Angeles River no later than September 30, 2016 and every year thereafter.

2. The City of Long Beach shall comply with interim and final water quality-based effluent limitations for trash discharged to the Los Angeles River, per the schedule below:

Table 37. Los Angeles River Watershed Trash Effluent Limitations[40] per Storm Year[41] (gallons of uncompressed Trash)

	Baseline	2013 (20%)	2014 (10%)	2015 (3.3%)	2016[41] (0%)
Long Beach	87135	17427	8713.5	2875.46	0

[41] Permittees shall achieve their final effluent limitation of zero trash discharge for the 2015-2016 storm year and every year thereafter.

Table 38. Los Angeles River Watershed Trash Effluent Limitations[3] per Storm Year[4] (pounds of drip-dry trash)

	Baseline	2013 (20%)	2014 (10%)	2015 (3.3%)	2016[42] (0%)
Long Beach	149759	29951.8	14975.9	4942.05	0

a. Effluent Limitations

The City of Long Beach shall comply with the interim and final WQBELs for trash as follows:

b. Compliance

Pursuant to CWC Section 13360(a), the City of Long Beach may comply with the trash effluent limitations using any lawful means. Such compliance options are broadly classified as *full capture*, *partial capture, institutional controls,* or *minimum frequency of assessment and collection,* as described below, and any combination of these may be employed to achieve compliance:

(1) Full Capture Systems:

(a) The Basin Plan authorizes the Los Angeles Regional Board Executive Officer to certify *full capture systems*, which are systems that meet the operating and performance requirements as described in this Order, and the procedures identified in "Procedures and Requirements for Certification of a Best Management Practice for Trash Control as a Full Capture System."[43]

(b) The City of Long Beach is authorized to comply with the effluent limitations through certified *full capture systems* provided the requirements of paragraph (c), immediately below, and any conditions in the certification, continue to be met.

(c) The City of Long Beach may comply with the effluent limitations through progressive installation of *full capture systems* throughout their jurisdictional areas until all areas draining to the Los Angeles River system are addressed. For purposes of this Order, attainment of the effluent limitations shall be conclusively presumed for any drainage area to the Los Angeles River (and its tributaries), where certified *full capture systems* treat all drainage from the area, provided that the *full capture systems* are adequately sized and maintained, and that maintenance records are up-to-date and available for inspection by the Los Angeles Regional Board.

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[42] Permittees shall achieve their final effluent limitation of zero trash discharge for the 2015-2016 storm year and every year thereafter.

[43] The Regional Water Board currently recognizes eight *full capture systems*. These are: Vortex Separation Systems (VSS) and seven other Executive Officer certified *full capture systems*, including specific types or designs of trash nets; two gross solids removal devices (GSRDs); catch basin brush inserts and mesh screens; vertical and horizontal trash capture screen inserts; and a connector pipe screen device. See August 3, 2004 Los Angeles Regional Water Quality Control Board Memorandum titled "Procedures and Requirements for Certification of a Best Management Practice for Trash Control as a Full Capture System.

(d) The City of Long Beach shall be deemed in compliance with its final effluent limitation if the City of Long Beach demonstrates that all drainage areas under its jurisdiction and/or authority are serviced by appropriate certified *full capture systems* as described in paragraph (1)(c).

(e) The City of Long Beach shall be deemed in compliance with its interim effluent limitations, where applicable:

(i) By demonstrating that *full capture systems* treat the percentage of drainage areas in the watershed that corresponds to the required trash abatement.

(ii) Alternatively, the City of Long Beach may propose a schedule for installation of *full capture systems* in areas under its jurisdiction and/or authority within a given watershed, targeting first the areas of greatest trash generation, for the Los Angeles Regional Board Executive Officer's approval. The Los Angeles Regional Board Executive Officer shall not approve any such schedule that does not result in timely compliance with the final effluent limitations, consistent with the established TMDL implementation schedule and applicable State policies. The City of Long Beach shall be deemed in compliance with its interim effluent limitations provided it is fully in compliance with any such approved schedule.

(2) Partial Capture Devices and Institutional Controls: The City of Long Beach may comply with the interim and final effluent limitations through the installation of *partial capture devices* and the application of *institutional controls*.[44]

(a) Trash discharges from areas serviced solely by *partial capture devices* may be estimated based on demonstrated performance of the device(s) in the implementing area.[45] That is, trash reduction is equivalent to the *partial capture devices'* trash removal efficiency multiplied by the percentage of drainage area serviced by the devices.

(b) Except as provided in subdivision (c), immediately below, trash discharges from areas addressed by *institutional controls* and/or *partial capture devices* (where site-specific performance data is not available) shall be calculated using a mass balance approach, based on the daily generation rate (DGR) for a representative area.[46] The DGR shall be determined from direct measurement of trash deposited in the drainage area during any thirty-day period between June 22nd and September 22nd exclusive of rain events[47], and shall be re-calculated every year thereafter unless a less frequent period for recalculation is approved by the Regional Water Board Executive Officer. The DGR

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[44] While interim effluent limitations may be complied with using *partial capture devices*, compliance with final effluent limitations cannot be achieved with the exclusive use of *partial capture devices*.

[45] Performance shall be demonstrated under different conditions (e.g. low to high trash loading).

[46] The area(s) should be representative of the land uses and activities within the Permittee's authority and shall be approved by the Executive Officer prior to the 30-day collection period.

[47] Provided no special events are scheduled that may affect the representative nature of that collection period.

shall be calculated as the total amount of trash collected during this period divided by the length of the collection period.

DGR = (Amount of trash collected during a 30-day collection period[48] */ (30 days)*

The DGR for the applicable area under the City of Long Beach's jurisdiction and/or authority shall be extrapolated from that of the representative drainage area(s). A mass balance equation shall be used to estimate the amount of trash discharged during a storm event.[49] The *Storm Event Trash Discharge* for a given rain event in the City of Long Beach's drainage area shall be calculated by multiplying the number of days since the last street sweeping by the DGR and subtracting the amount of any trash recovered in the catch basins.[50] For each day of a storm event that generates precipitation greater than 0.25 inch, the City of Long Beach shall calculate a *Storm Event Trash Discharge.*

Storm Event Trash Discharge = [(Days since last street sweeping*DGR)] – [Amount of trash recovered from catch basins][51]

The sum of the *Storm Event Trash Discharges* for the storm year shall be the City of Long Beach's calculated annual trash discharge.

Total Storm Year Trash Discharge = ∑Storm Event Trash Discharges from Drainage Area

(c) The Executive Officer may approve alternative compliance monitoring approaches for calculating total storm year trash discharge, upon finding that the program will provide a scientifically-based estimate of the amount of trash discharged from the City of Long Beach's MS4.

(3) Combined Compliance Approaches:

The City of Long Beach may comply with their interim and final effluent limitations through a combination of *full capture systems*, *partial capture devices*, and *institutional controls*. Where the City of Long Beach relies on a combination of approaches, it shall demonstrate compliance with the interim and final effluent limitations as specified in Part O.2.b(1) in areas where *full capture systems* are installed and as specified in Part O.2.b(2) as appropriate, in areas where *partial capture devices* and *institutional controls* are applied.

(4) Minimum Frequency of Assessment and Collection Approach:

If allowed in a trash TMDL and approved by the Executive Officer, the City of Long Beach may alternatively comply with its final effluent limitations by implementing a program for *minimum frequency of assessment and*

[48] Between June 22nd and September 22nd

[49] Amount of trash shall refer to the uncompressed volume (in gallons) or drip-dry weight (in pounds) of trash collected.

[50] Any negative values shall be considered to represent a zero discharge.

[51] When more than one storm event occurs prior to the next street sweeping the discharge shall be calculated from the date of the last assessment.

collection (MFAC) in conjunction with BMPs. To the satisfaction of the Executive Officer, the MFAC/BMP program must meet the following criteria:

(a) The MFAC/BMP Program includes an initial minimum frequency of trash assessment and collection and suite of structural and/or nonstructural BMPs. The MFAC/BMP program shall include collection and disposal of all trash found in the receiving water and shoreline. Discharger shall implement an initial suite of BMPs based on current trash management practices in land areas that are found to be sources of trash to the water body. The initial minimum frequency of trash assessment and collection shall be set as specified in the Machado Lake Trash TMDL

(b) The MFAC/BMP Program includes reasonable assurances that it will be implemented by the responsible Discharger.

(c) MFAC protocols may be based on SWAMP protocols for rapid trash assessment, or alternative protocols proposed by Discharger and approved by the Regional Water Board Executive Officer.

(d) Implementation of the MFAC/BMP program should include a Health and Safety Program to protect personnel. The MFAC/BMP program shall not require Discharger to access and collect trash from areas where personnel are prohibited.

(e) The Los Angeles Regional Board Executive Officer may approve or require a revised assessment and collection frequency and definition of the critical conditions under the MFAC:

- **(i)** To prevent trash from accumulating in deleterious amounts that cause nuisance or adversely affect beneficial uses between collections;
- **(ii)** To reflect the results of trash assessment and collection;
- **(iii)** If the amount of trash collected does not show a decreasing trend, where necessary, such that a shorter interval between collections is warranted; or
- **(iv)** If the amount of trash collected is decreasing such that a longer interval between collections is warranted.

(f) At the end of the implementation period, a revised MFAC/BMP program may be required if the Los Angeles Regional Board Executive Officer determines that the amount of trash accumulating between collections is causing nuisance or otherwise adversely affecting beneficial uses.

(g) With regard to (4)(e)(i), (4)(e)(ii), or (4)(e)(iii), above, the Los Angeles Regional Board Executive Officer is authorized to allow the City of Long Beach to implement additional structural or non-structural BMPs in lieu of modifying the monitoring frequency.

(h) If the City of Long Beach is not in compliance with its applicable interim and/or final trash effluent limitation then it shall be in violation of this Order.

(i) If the City of Long Beach relying on *partial capture devices* and/or *institutional controls* has violated its interim and/or final effluent

limitation(s), the City of Long Beach shall be presumed to have violated the applicable limitation for each day of each storm event that generated precipitation greater than 0.25 inch during the applicable storm year, except those storm days on which it establishes that its cumulative Storm Event Trash Discharges has not exceeded the applicable effluent limitation.

(j) If the City of Long Beach relying on *full capture systems* has failed to demonstrate that the *full capture systems* for any drainage area are adequately sized and maintained, and that maintenance records are up-to-date and available for inspection by the Regional Water Board, and that it is in compliance with any conditions of its certification, shall be presumed to have discharged trash in an amount that corresponds to the percentage of the baseline waste load allocation represented by the drainage area in question.

(k) The City of Long Beach may overcome this presumption by demonstrating (using any of the methods authorized in Part VIII.O.2.b(2) that the actual or calculated discharge for that drainage area is in compliance with the applicable interim or final effluent limitation.

(l) The City of Long Beach shall be held liable for violations of the effluent limitations assigned to their area. If the City of Long Beach's compliance strategy includes *full* or *partial capture devices* and it chooses to install a full or partial capture device in the MS4 physical infrastructure of another public entity, it is responsible for obtaining all necessary permits to do so. If the City of Long Beach believes it is unable to obtain the permits needed to install a full capture or partial capture device within another Discharger's MS4 physical infrastructure, either Discharger may request the Executive Officer to hold a conference between the City and the other discharger. Nothing in this Order shall affect the right of that public entity or a Discharger to seek indemnity or other recourse from the other as they deem appropriate. Nothing in this subsection shall be construed as relieving a Discharger of any liability that the City of Long Beach would otherwise have under this Order.

c. Monitoring and Reporting Requirements (pursuant to California Water Code Section 13383)

i. The City of Long Beach shall submit a TMDL Compliance Report as part of its Annual Report detailing compliance with the applicable interim and/or final effluent limitations. Reporting shall include the information specified below. The report shall be submitted on the reporting form specified by the Los Angeles Regional Water Board Executive Officer. The report shall be signed under penalty of perjury by the City of Long Beach's principal executive officer or ranking elected official or duly authorized representative of the officer, consistent with Part V.B of Attachment D (Standard Provisions), who is responsible for ensuring compliance with this Order. The City of Long Beach shall be charged with and shall demonstrate compliance with its applicable effluent limitations beginning with its December 15, 2014, TMDL Compliance Report.

(1) Reporting Compliance based on Full Capture Systems: Discharger shall provide information on the number and location of full capture installations, the sizing of each full capture installation, the drainage areas addressed by these installations, and compliance with the applicable interim or final effluent limitation, in its TMDL Compliance Report. The Los Angeles Water Board will periodically audit sizing, performance, and other data to validate that a system satisfies the criteria established for a *full capture system* and any conditions established by the Regional Water Board Executive Officer in the certification.

(2) Reporting Compliance based on Partial Capture Systems and/or Institutional Controls:

(a) Using Performance Data Specific to the City of Long Beach's Area: In its TMDL Compliance Report, a Discharger shall provide: (i) site-specific performance data for the applicable device(s); (ii) information on the number and location of such installations, and the drainage areas addressed by these installations; and (iii) calculated compliance with the applicable effluent limitations.

(b) Using Direct Measurement of Trash Discharge: Discharger shall provide an accounting of DGR and trash removal via street sweeping, catch basin clean outs, etc., in a database to facilitate the calculation of discharge for each rain event. The database shall be maintained and provided to the Regional Water Board for inspection upon request. In its TMDL Compliance Report, a Discharger shall provide information on its annual DGR, calculated storm year discharge, and compliance with the applicable effluent limitation.

(3) Reporting Compliance based on Combined Compliance Approaches:

Discharger shall provide the information specified in Part VIII.5.c.i(1) for areas where *full capture systems* are installed and that are specified in Part VIII.5.c.i(2)(a) or (b), as appropriate, for areas where *partial capture devices* and *institutional controls* are applied. In its TMDL Compliance Report, a Discharger shall also provide information on compliance with the applicable effluent limitation based on the combined compliance approaches.

(4) Reporting Compliance based on an MFAC/BMP Approach:

The MFAC/BMP Program includes a Trash Monitoring and Reporting Plan, and a requirement that the responsible Discharger will self-report any non-compliance with its provisions. The results and report of the Trash Monitoring and Reporting Plan must be submitted to Regional Water Board with the City of Long Beach's Annual Report.

ii. Violation of the reporting requirements of this Part shall be punishable pursuant to, inter alia, CWC Section 13385, Subdivisions (a)(3) and (h)(1), and/or Section 13385.1.

P. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL

1. The City of Long Beach shall comply with the interim water quality-based effluent limitations listed below, as of the effective date of this Order:

   a. The City of Long Beach shall comply with the following interim water quality-based effluent limitations for discharges to Dominguez Channel freshwater during wet weather:

      i. The freshwater toxicity interim water quality-based effluent limitation is 2 TUc. The freshwater interim effluent limitation shall be implemented as a trigger requiring initiation and implementation of the TRE/TIE process as outlined in US EPA's "Understanding and Accounting for Method Variability in Whole Effluent Toxicity Applications Under the National Pollutant Discharge Elimination System Program" (2000).

      ii. The City of Long Beach shall comply with the following interim metals water quality-based effluent limitations for discharges to the Dominguez Channel freshwater during wet weather:

Table 39. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL Interim Metals Water Quality-based Effluent Limitations

Metals	Interim Effluent Limitation Daily Maximum (µg/L)
Total Copper	207.51
Total Lead	122.88
Total Zinc	898.87

   b. The City of Long Beach shall comply with the following interim concentration-based water quality-based effluent limitations for pollutant concentrations in the sediment discharged to the Dominguez Channel Estuary and Greater Los Angeles and Long Beach Harbor Waters:

Table 40. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL Interim Concentration-based Water Quality-based Effluent Limitations

Water Body	Interim Effluent Limitations Daily Maximum (mg/kg sediment)					
	Copper	Lead	Zinc	DDT	PAHs	PCBs
Dominguez Channel Estuary (below Vermont Avenue)	220.0	510.0	789.0	1.727	31.60	1.490
Long Beach Inner Harbor	142.3	50.4	240.6	0.070	4.58	0.060
Long Beach Outer Harbor (inside breakwater)	67.3	46.7	150	0.075	4.022	0.248
Los Angeles River Estuary	53.0	46.7	183.5	0.254	4.36	0.683
San Pedro Bay Near/Off Shore Zones	76.9	66.6	263.1	0.057	4.022	0.193

2. The City of Long Beach shall comply with the final water quality-based effluent limitations as listed below no later than March 23, 2032, and every year thereafter:

a. Dominguez Channel Freshwater – Wet Weather

i. Freshwater Toxicity Effluent Limitation shall not exceed the monthly median of 1 TUc.

ii. The City of Long Beach shall comply with the following final metals water quality-based effluent limitations for discharges to Dominguez Channel and all upstream reaches and tributaries of Dominguez Channel above Vermont Avenue:

Table 41. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL Final Metals Water Quality-based Effluent Limitations

Metals	Water Column Mass-Based Final Effluent Limitation Daily Maximum[52] (g/day)
Total Copper	1,300.3
Total Lead	5,733.7
Total Zinc	9,355.5

b. Dominguez Channel Estuary and Greater Los Angeles and Long Beach Harbor Waters

i. The City of Long Beach shall comply with the following final mass-based water quality-based effluent limitations, expressed as an annual loading of pollutants in the sediment deposited to Dominguez Channel Estuary, Los

[52] Effluent limitations are based on a hardness of 50 mg/L, and 90th percentile of annual flow rates (62.7 cfs) in Dominguez Channel. Recalculated mass-based effluent limitations using ambient hardness and flow rate at the time of sampling are consistent with the assumptions and requirements of the TMDL. In addition to the effluent limitations above, samples collected during flow conditions less than the 90th percentile of annual flow rates must demonstrate that the acute and chronic hardness dependent water quality criteria provided in the California Toxics Rule (CTR) are achieved.

Angeles River Estuary, and the Greater Los Angeles and Long Beach Harbor Waters:

Table 42. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL Final Mass-based Water Quality-based Effluent Limitations

Water Body	Final Effluent Limitations Annual (kg/yr)			
	Total Cu	Total Pb	Total Zn	Total PAHs
Dominguez Channel Estuary	0.6	1.52	7.6	0.0038
Inner Harbor	0.463	9.31	31.71	0.024
Outer Harbor	0.63	18.1	56.4	0.073
San Pedro Bay	137.9	372.2	1449.7	12.0
LA River Estuary	375.8	698.9	2572.7	24.56

ii. The City of Long Beach shall comply with the following final concentration-based water quality-based effluent limitations for pollutant concentrations in the sediments discharged to the Dominguez Channel Estuary:

Table 43. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL Final Concentration-based Water Quality-based Effluent Limitations

Water Body	Effluent Limitations Daily Maximum (mg/kg dry sediment)		
	Cadmium	Chromium	Mercury
Dominguez Channel Estuary	1.2	--	--

c. The City of Long Beach shall comply with the following final mass-based water quality-based effluent limitations, expressed as an annual loading of total DDT and total PCBs in the sediment deposited to Dominguez Channel Estuary, Los Angeles River Estuary, and the Greater Los Angeles and Long Beach Harbor Waters:

Table 44. Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL Final Mass-based Water Quality-based Effluent Limitations

Water Body	Final Effluent Limitations Annual (g/yr)	
	Total DDTs	Total PCBs
Dominguez Channel Estuary	0.007	0.006
Inner Harbor	0.014	0.016
Outer Harbor	0.004	0.014
San Pedro Bay	0.333	3.01
LA River Estuary	1.067	3.441

3. Compliance Determination

a. The City of Long Beach shall be deemed in compliance with the interim concentration-based water quality-based effluent limitations for pollutant concentrations in the sediment as listed above by meeting any one of the following methods:

i. Demonstrate that the sediment quality condition of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiple lines of evidence as defined in the Sediment Quality Objectives (SQO) Part 1, is met; or

ii. Meet the interim water quality-based effluent limitations in bed sediment over a three-year averaging period; or

iii. Meet the interim water quality-based effluent limitations in the discharge over a three-year averaging period.

b. The City of Long Beach shall be deemed in compliance with the final fresh water metals water quality-based effluent limitations for discharges to Dominguez Channel as listed above by meeting any one of the following methods:

i. Final metals water quality-based effluent limitations are met; or

ii. CTR total metals criteria are met instream; or

iii. CTR total metals criteria are met in the discharge.

c. The City of Long Beach shall be deemed in compliance with the final water quality-based effluent limitations for pollutants in the sediment as listed above by meeting any one of the following methods:

i. Final water quality-based effluent limitations for pollutants in the sediment are met; or

ii. The qualitative sediment condition of *Unimpacted* or *Likely Unimpacted* via the interpretation and integration of multiple lines of evidence as defined in the SQO Part 1, is met, with the exception of chromium, which is not included in the SQO Part 1; or

iii. Sediment numeric targets are met in bed sediments over a three-year averaging period.

d. The City of Long Beach shall be deemed in compliance with the final water quality-based effluent limitations for total DDT and total PCBs in the sediment as listed above in Part VIII.P.2.c by meeting any one of the following methods:

i. Fish tissue targets are met in species resident to the specified water bodies[53]; or

ii. Final water quality-based effluent limitations for pollutants in the sediment are met; or

iii. Sediment numeric targets to protect fish tissue are met in bed sediments over a three-year averaging period; or

[53] A site-specific study to determine resident species shall be submitted to the Regional Water Board Executive Officer for approval.

iv. Demonstrate that the sediment quality condition protective of fish tissue is achieved per the State Water Board's Statewide Enclosed Bays and Estuaries Plan.

Q. San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL (USEPA established)

1. The City of Long Beach shall comply with the following grouped[54] wet weather[55] WLAs, expressed as total recoverable metals discharged to all upstream reaches and tributaries of the San Gabriel River Reach 2 and Coyote Creek per the provisions in Part VIII.G:

Table 45. San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL Grouped Wet Weather Waste Load Allocations

Water Body	WLA Daily Maximum (kg/day)		
	Copper	Lead	Zinc
San Gabriel Reach 2	---	81.34 µg/L x daily storm volume (L)	---
Coyote Creek	24.71 µg/L x daily storm volume (L)	96.99 µg/L x daily storm volume (L)	144.57 µg/L x daily storm volume (L)

2. The City of Long Beach shall comply with the following grouped[1] dry weather WLAs, expressed as total recoverable metals discharged to San Gabriel River Reach 1, Coyote Creek, and San Gabriel River Estuary per the provisions in Part VIII. G:

Table 46. San Gabriel River Metals and Impaired Tributaries Metals and Selenium TMDL Grouped Dry Weather Waste Load Allocations

Water Body	WLA Daily Maximum	
	Copper	Selenium
San Gabriel Reach 1	18 µg/L	---
Coyote Creek	0.941 kg/day*	---
San Gabriel River Estuary	3.7 µg/L	---

*Calculated based upon the median flow at LACDPW Station F354-R of 19 cfs multiplied by the numeric target of 20 µg/L, minus direct air deposition of 0.002 kg/d.

3. The City of Long Beach may convert the grouped mass-based WLAs into individual WLAs based on the percentage of the watershed and land uses within the City of Long Beach's jurisdiction, upon approval of the Regional Water Board Executive Officer.

[54]The wet weather and dry weather water WLAs are group-based and shared among all MS4 Permittees, which includes LA County MS4 Permittees, the City of Long Beach, and Orange County MS4 Permittees located within the drainage area and Caltrans.

[55] In San Gabriel River Reach 2, wet weather TMDLs apply when the maximum daily flow of the river is equal to or greater than 260 cfs as measured at USGS station 11085000, located at the bottom of Reach 3 just above the Whittier Narrows Dam. In Coyote Creek, wet weather TMDLs apply when the maximum daily flow in the creek is equal to or greater than 156 cfs as measured at LACDPW flow gauge station F354-R, located at the bottom of the creek, just above the Long Beach WRP.

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ORDER NO. R4-2014-0024
NPDES PERMIT NO. CAS004003

MONITORING AND REPORTING PROGRAM – CI No. 8052

WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM DISCHARGES FROM THE CITY OF LONG BEACH

February 6, 2014

Table of Contents

I. LEGAL BASIS FOR THE MONITORING AND REPORTING PROGRAM

Section 308(a) of the federal Clean Water Act and sections 122.41(h), (j)-(l), 122.44(i), and 122.48 of Title 40 of the Code of Federal Regulations (40 CFR) requires that all National Pollutant Discharge Elimination System (NPDES) Permits specify monitoring and reporting requirements. Federal regulations applicable to large and medium MS4s also specify additional monitoring and reporting requirements (40 CFR §§ 122.26(d)(2)(i)(F) & (d)(2)(iii)(D), and 122.42(c)). Section 13383 of the California Water Code further authorizes the Regional Water Board, to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. This MRP establishes monitoring, reporting, and recordkeeping requirements that implement the federal and California laws and/or regulations.

II. MONITORING OBJECTIVES AND SCOPE

A. Primary Objectives

The primary objectives of the Monitoring Program are to:

1. Assess the chemical, physical, and biological impacts of discharges from the municipal storm water sewer system (MS4) on receiving waters.
2. Assess compliance with receiving water limitations and water quality-based effluent limitations (WQBELs) established to implement Total Maximum Daily Load (TMDL) wet weather and dry weather waste load allocations (WLAs).
3. Characterize pollutant concentrations and loads in MS4 discharges.
4. Identify sources of pollutants in MS4 discharges.
5. Measure and improve the effectiveness of pollutant controls implemented under this Order.

B. Purpose

The results of the monitoring requirements outlined below shall be used to refine control measures for the reduction of pollutant loading and the protection and enhancement of the beneficial uses of the receiving waters and to implement the provisions listed in Order R4-2014-0024.

C. Integrated and Coordinated Monitoring Strategies

1. The Discharger may develop or participate in an integrated monitoring program to address all or part of the monitoring requirements of this Order and other monitoring obligations or requirements in a cost efficient and effective manner.

2. The Discharger may coordinate monitoring efforts on a watershed or subwatershed basis to leverage monitoring resources in an effort to increase cost-efficiency and effectiveness and to closely align monitoring with TMDL monitoring requirements and Watershed Management Programs.

D. Monitoring Program Elements

The Monitoring Program shall include the following elements:

1. **Receiving water monitoring**

   Receiving water monitoring shall be performed at all surface waters downstream of the Discharger's MS4 discharges, and at TMDL receiving water compliance points as designated in TMDL monitoring plans approved by the Los Angeles Regional Water Board Executive Officer (see Table E-1 for a list of approved TMDL Monitoring Plans. The objectives of the receiving water monitoring include the following:

   a. Determine whether the receiving water limitations are being achieved ,

   b. To assess trends in pollutant concentrations over time, or during specified conditions, and

   c. To determine compliance with water quality standards and determine if the designated beneficial uses are fully supported by conducting water chemistry, aquatic toxicity and biological monitoring (bioassessment).

2. **Storm water outfall based monitoring**; including

3. The Discharger shall perform storm water outfall monitoring and include any TMDL monitoring requirements as specified in approved TMDL Monitoring Plans (see Table E-1). Outfall monitoring locations shall be representative of the land uses within the Permittee's jurisdiction. The objectives of the storm water outfall based monitoring program include the following:

   a. Compare concentrations of pollutants in the Discharger's MS4 effluent to municipal action levels, as described in Attachment G of this Order,

b. Determine whether a Permittee's discharge is in compliance with applicable storm water WQBELs derived from WLAs,

c. To determine if the discharges from the MS4 cause or contribute to an exceedance of receiving water limitations.

d. To determine the annual load of pollutants from the MS4.

e. To determine relationships between the range of concentration of pollutants and storm size and intensity, elevation, watershed, and any other variables that may provide an insight on improving the storm water program.

4. Non-storm water outfall based monitoring

The Discharger shall conduct outfall monitoring for non-storm water discharges and include any TMDL monitoring requirements specified in approved TMDL Monitoring Plans (see Table E-1). At a minimum, the Discharger shall monitor outfalls with significant non-storm water discharges that remain unaddressed after source identification. The objectives of the non-storm water outfall based monitoring program include the following:

a. Determine whether a Permittee's discharge is in compliance with applicable non-storm water WQBELs derived from TMDL WLAs,

b. To determine if the discharge exceeds non-storm water action levels, as described in Attachment G of this Order,

c. To determine if the discharge contributes to or causes an exceedance of receiving water limitations,

d. To assist in identifying illicit discharges as described in Part VII.D of this Order.

e. To characterize the discharge's quantity, and quality and annual pollutant load if applicable.

5. New Development/Re-development effectiveness tracking.

The objectives of best management practices (BMP) effectiveness tracking is to determine if the conditions in the building permit issued by the Discharger are being implemented to ensure the volume of storm water associated with the design storm is retained on-site as required by Part VII.D of Order R4-2014-0024x.

6. Regional studies

The objectives of regional studies are to further characterize the impact of the MS4 discharges on the beneficial uses of receiving waters. Regional studies shall include the Southern California bight studies, the Southern California Stormwater Monitoring Coalition (SMC) Regional Watershed Monitoring Program (bioassessment) and special studies as specified in approved TMDLs (see Section XIX TMDL Reporting, below).

III. GENERAL MONITORING AND REPORTING REQUIREMENTS

A. Monitoring shall be conducted in accordance with the requirements specified in Attachment D to this Order (Part III, Standard Provisions - Monitoring).

B. Records of monitoring information shall include information required under Attachment D to this Order (Part IV, Standard Provisions - Records).

C. All applications, reports, plans, or other information submitted to the Los Angeles Regional Water Board, State Water Board, and/or USEPA shall be signed and certified in accordance with Attachment D to this Order (Part V.B, Standard Provisions - Reporting, Signatory and Certification Requirements).

D. Monitoring results shall be reported in accordance with the requirements specified in Attachment D to this Order (Part V.C, Standard Provisions - Reporting, Monitoring Reports).

E. All monitoring and reporting shall be conducted in accordance with the Standard Monitoring Provisions specified in Part XIV of this MRP.

F. Sampling Methods

1. Sampling methods shall be fully described in the Discharger's Integrated Monitoring Program (IMP) or Coordinated Integrated Monitoring Program (CIMP) and according to the provisions of the Standard Provisions for Monitoring described in Attachment D to this Order and Part XIV of this MRP.

2. Grab samples shall be taken for constituents that are required to be collected as such (e.g., pathogen indicator bacteria, oil and grease, cyanides, and volatile organics); in instances where grab samples are generally expected to be sufficient to characterize water quality conditions (primarily dry weather); and where the sample location limits the Discharger's ability to install an automated sampler, as provided for in an approved IMP or CIMP.

3. At a minimum, a sufficient volume of sample must be collected to perform all of the required biological and chemical tests, including TIEs where aquatic toxicity is observed during the sample event.

4. Sampling and monitoring methods for trash shall be conducted in accordance with the applicable requirements specified in Part VIII of this Order.

5. Flow may be estimated using USEPA methods at receiving water monitoring stations where flow measuring equipment is not in place.

6. Flow may be estimated for storm water outfall monitoring based on drainage area, impervious cover, and precipitation data as approved in an IMP or CIMP.

G. Analytical Procedures

1. Suspended-Sediment Concentration (SSC) shall by analyzed per American Society for Testing and Materials (ASTM) Standard Test Method D-3977-97.
2. Monitoring methods for trash shall be conducted in accordance with the applicable requirements specified in Part VIII of this Order.
3. Aquatic toxicity shall be monitored in accordance with Part XI of this MRP.
4. All other parameters shall be analyzed according to the provisions of the Standard Provisions for Monitoring described in Attachment D to Order No. R4-2014-0024 and Part XIV of this MRP.

H. Reporting

1. Monitoring results shall be submitted to the Los Angeles Regional Board in a manner consistent with the requirements identified in Part XVIII.A.5 and Part XVIII.A.7 of this MRP.
2. Reporting requirements related to the monitoring of trash shall be conducted in accordance with Part VIII of Order No. R4-2014-0024.

IV. INTEGRATED MONITORING PROGRAMS

A. Integrated Monitoring Program (IMP)

1. The Discharger may develop an Integrated Monitoring Program designed to satisfy the monitoring requirements of Order No. R4-2014-0024.
2. The monitoring requirements contained in TMDL Monitoring Plans approved by the Executive Officer of the Los Angeles Regional Water Board are incorporated by reference into this MRP (See Table E-1 for a list of approved TMDL Monitoring Plans).
3. The Integrated Monitoring Program may leverage monitoring resources by selecting monitoring locations, parameters, or monitoring techniques that will satisfy multiple monitoring requirements.
4. Where appropriate, the Integrated Monitoring Program may develop and utilize alternative approaches to meet the Primary Objectives (Part II.A). Sufficient justification shall be provided in the IMP for the alternative approach(es). Such alternative approaches shall be subject to public review and final approval by the Los Angeles Regional Water Board Executive Officer.
5. The requirements of an approved TMDL Monitoring Plan may be modified by an IMP that is subsequently approved by the Executive Officer of the Los Angeles Regional Water Board.

6. At a minimum, the IMP must address all TMDL and Non-TMDL monitoring requirements of this Order, including receiving water monitoring, storm water outfall based monitoring, non-storm water outfall based monitoring, and regional water monitoring studies, except as provided in Parts IV.B.2 and 3 of this MRP.

B. Coordinated Integrated Monitoring Program (CIMP)

1. Benefits of the CIMP Approach

a. The CIMP provides opportunities to increase the cost efficiency and effectiveness of the monitoring program. The greatest efficiency may be achieved when a CIMP is designed and implemented on a watershed/receiving water basis.

b. A CIMP may be employed to implement regional studies, where the Discharger or other entity leads the effort in directing the study, or the Discharger entity provides funding or in lieu services.

2. The Discharger may coordinate their monitoring programs with other entities to develop and implement a CIMP. A CIMP may be developed to address one or more of the required monitoring elements (i.e., receiving water monitoring, outfall based monitoring, regional monitoring or special studies) and may be county-wide or limited to a single receiving water/ watershed, sub-watershed or defined jurisdictional boundary.

3. The requirements of an approved TMDL Monitoring Plan may be modified by an IMP or CIMP that is subsequently approved by the Executive Officer of the Los Angeles Regional Water Board.

4. The Discharger shall not be required to submit an IMP if the Discharger participates in a CIMP that complies with all the applicable monitoring requirements in this Order.

5. If the CIMP addresses some but not all of the applicable monitoring requirements required under this Order, the Discharger shall submit an IMP that references the CIMP and addresses those requirements not included in the CIMP. The Discharger must describe how the IMP and CIMP fulfill all of the applicable monitoring requirements contained in Order R4-2014-0024.

6. Where appropriate, the Discharger may include in the CIMP alternative approaches to meet the primary objectives in Part II.A. The Discharger shall provide sufficient justification in the CIMP for the alternative approach(es). Such alternative approaches shall be subject to public review and final approval by the Los Angeles Regional Water Board Executive Officer.

C. Schedule for Submitting the Monitoring Plan to the Los Angeles Regional Water Board and Conducting Outfall Screening

1. Within three (3) months after the effective date of this Order, the Discharger shall submit a letter of intent to the Executive Officer of the Los Angeles Regional Water Board describing the Discharger's intention to follow an IMP

or a CIMP approach for each of the required monitoring plan elements in conjunction with its notification regarding development of a WMP or EWMP.

2. If the Discharger elects to develop a WMP, the Discharger shall submit an IMP or CIMP to the Executive Officer of the Los Angeles Regional Water Board concurrently with the draft WMP.
3. If the Discharger elects to develop an EWMP, the Discharger shall submit an IMP or CIMP to the Executive Officer of the Los Angeles Regional Water Board by June 28, 2014.
4. If upon finalization of the CIMP, the Discharger developed an IMP and determines the IMP must be revised to include monitoring requirements not covered under the final CIMP, the revised IMP shall be submitted to the Executive Officer of the Los Angeles Regional Water Board within 60 days after approval of the CIMP by the Executive Officer of the Los Angeles Regional Water Board.
5. Monitoring shall commence within 30 days after approval of the IMP, or within 90 days after approval of the CIMP, by the Executive Officer of the Los Angeles Regional Water Board.
6. If the Discharger does not elect to develop a Watershed Management Program (WMP) or Enhanced Watershed Management Program (EWMP) and corresponding IMP or CIMP, monitoring shall be conducted on per the requirements of this MRP, beginning six (6) months after the effective date of this Order.
7. Monitoring requirements pursuant to Order No. 99-060, and pursuant to approved TMDL monitoring plans identified in Table E-1, shall remain in effect until the Executive Officer of the Los Angeles Regional Board approves the Discharger's IMP and/or CIMP.

V. TMDL MONITORING PLANS

Table E-1. Approved TMDL Monitoring Plans by Watershed Management Area

TMDL	Comment	Date of Final Plan	Los Angeles Regional Water Board Approval Date
Dominguez Channel and Greater Harbors Waters Watershed Management Area			
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL	Monitoring Plan is due on November 23, 2013.	---	---
Los Angeles River Watershed Management Area			

TMDL	Comment	Date of Final Plan	Los Angeles Regional Water Board Approval Date
Los Angeles River Watershed Trash TMDL	Monitoring Plan was not required.	N/A	N/A
Los Angeles River Nitrogen Compounds and Related Effects TMDL	Monitoring Plan was due on March 23, 2005.	March 23, 2005	Has not been approved.
Los Angeles River and Tributaries Metals TMDL	Los Angeles River Metals TMDL Coordinated Monitoring Plan	March 25, 2008	April 11, 2008
Los Angeles River Watershed Bacteria TMDL	Monitoring Plan is due on March 23, 2013.	---	---
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL	USEPA Established TMDL	N/A	N/A
San Gabriel River Watershed Management Area			
San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	USEPA Established TMDL	N/A	N/A
Los Cerritos Channel and Alamitos Bay Watershed Management Area			
Los Cerritos Channel Metals TMDL	USEPA Established TMDL	N/A	N/A
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL	Colorado Lagoon TMDL Monitoring Plan (CLTMP)	June 15, 2012	August 23, 2012

VI. RECEIVING WATER MONITORING

A. Integrated Monitoring Program Receiving Water Monitoring Requirements

1. The IMP shall contain the following information for receiving water monitoring requirements:

   a. Declaration of whether receiving water monitoring is conducted under an IMP, CIMP or both.

b. If receiving water monitoring is performed under the IMP, the plan must contain the following information:

i. A map (preferably GIS) identifying the proposed receiving water monitoring stations for both dry weather and wet weather monitoring.

ii. An explanation of how and why monitoring at the proposed locations will provide representative measurement of the effects of the Permittee's MS4 discharges on the receiving water.

iii. Identification of applicable TMDLs and TMDL compliance points, based on approved TMDL Monitoring Plans and/or as identified in the Basin Plan for the applicable TMDLs.

iv. A description of how the Discharger is fulfilling its obligations for TMDL receiving water monitoring under this IMP, CIMP or other monitoring plans.

v. A description of how the Discharger's MS4 effluent is contributing to outfall monitoring locations and to mass emission station monitoring locations. .

B. Coordinated and Integrated Monitoring Program Receiving Water Monitoring Requirements

1. The CIMP shall contain the following information for receiving water monitoring requirements:

a. A list of the participants.

b. A map (preferably GIS) delineating the geographic boundaries of the monitoring plan including the receiving waters, the MS4 catchment drainages and outfalls, subwatershed boundaries (i.e., HUC-12 or HUC-12 equivalent), political boundaries, land use, and the proposed receiving water monitoring stations for both dry weather and wet weather receiving water monitoring.

c. An explanation of how and why monitoring at the proposed locations will provide representative measurement of the effects of the MS4 discharges on the receiving water.

2. The CIMP shall contain the following receiving water monitoring requirements pertaining to TMDLs:

a. A list of applicable TMDLs and TMDL compliance points, based on approved TMDL Monitoring Plans and/or as identified in the Basin Plan for the applicable TMDLs.

b. Identification of the proposed receiving water monitoring stations that fulfill the TMDL Monitoring Plan(s) requirements.

c. Shoreline Monitoring Stations monitored pursuant to a bacteria TMDL. Sampling for bacterial indicators (total coliform, fecal coliform (or E. coli), and enterococcus) at shoreline monitoring locations associated with an

MS4 outfall and addressed by a TMDL shall be conducted 3-5 times per week at sites subject to the reference system criterion for allowable exceedance days, and weekly at sites subject to the antidegradation criterion for allowable exceedance days.

3. The CIMP shall contain the following receiving water monitoring requirements pertaining to mass emission stations

   a. Location of mass emission stations,

   b. Description of monitoring at outfalls and at mass emission stations.

C. Minimum Wet Weather Receiving Water Monitoring Requirements

1. The IMP or CIMP shall incorporate the following minimum requirements for monitoring the receiving water during wet weather conditions:

   a. The receiving water shall be monitored a minimum of three times per year for all parameters except aquatic toxicity, which must be monitored at least twice per year, or more frequently if required by applicable TMDL Monitoring Plans.

   b. Monitoring shall be performed in the receiving water during wet weather conditions, defined for the purposes of this monitoring program as follows:

      i. When the receiving water is an ocean or estuarine water body, wet weather occurs during a storm event of greater than or equal to 0.1 inch of precipitation, as measured from at least 50 percent of the Los Angeles County controlled rain gauges within the watershed, or based on an alternative precipitation threshold as provided for in an approved IMP or CIMP.

      ii. When the receiving water body is a river, stream or creek, wet weather shall be defined as when the flow within the receiving water is at least 20 percent greater than the base flow or an alternative threshold as provided for in an approved IMP or CIMP, or as defined by effective TMDLs within the watershed.

      iii. Monitoring shall occur during wet weather conditions, including targeting the first significant rain event of the storm year following the criteria below, and at least two additional wet weather events within the same wet weather season. The Discharger shall target the first storm event of the storm year with a predicted rainfall of at least 0.25 inch at a seventy percent probability of rainfall at least 24 hours prior to the event start time. The Discharger shall target subsequent storm events that forecast sufficient rainfall and runoff to meet program objectives and site specific study needs. Sampling events shall be separated by a minimum of three days of dry conditions (less than 0.1 inch of rain each day).

c. Wet weather receiving water monitoring shall begin as soon as possible after storm water outfall-based monitoring, in order to be reflective of potential impacts from MS4 discharges.

d. At a minimum, the following parameters shall be monitored unless a surrogate pollutant has been approved by the Executive Officer of the Los Angeles Regional Water Board.

   i. Flow

   ii. Pollutants assigned a receiving water limitation derived from TMDL WLAs (See Part VIII of this Order),

   iii. Other pollutants identified on the CWA Section 303(d) List for the receiving water or downstream receiving waters,

   iv. Total Suspended Solids (TSS) and Suspended-Sediment Concentration (SSC) if the receiving water is listed on the CWA 303(d) list for sedimentation, siltation or turbidity,[1]

   v. Field measurements applicable to inland freshwater bodies only: hardness, pH, dissolved oxygen, temperature, and specific conductivity,

   vi. Aquatic Toxicity (twice per year, once during first storm event of the storm year as specified above).

e. Additionally, the screening parameters in Table E-2 shall be monitored in the first year of monitoring during the first significant rain event of the storm year. If a parameter is not detected at the Method Detection Limit (MDL) for its respective test method or the result is below the lowest applicable water quality objective, and is not otherwise identified in subparts d.i.-d.vi. above, it need not be further analyzed. If a parameter is detected exceeding the lowest applicable water quality objective then the parameter shall be analyzed for the remainder of the Order during wet weather at the receiving water monitoring station where it was detected.

D. Minimum Dry Weather Receiving Water Monitoring

1. The IMP and/or CIMP shall incorporate the following minimum requirements for monitoring the receiving water during dry weather conditions:

   a. The receiving water shall be monitored a minimum of two times per year for all parameters, or more frequently if required by applicable TMDL Monitoring Plans. One of the monitoring events shall be during the month with the historically lowest instream flows, or where instream flow data are not available, during the historically driest month.

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[1] Gray, John, R., G. Douglas Glysson, Lisa M. Turcios, and Gregory E. Schwarz. 2000. *Comparability of Suspended-Sediment Concentration and Total Suspended Solids Data*. United States Geological Survey. Water Resources Investigations Report 00-4191. August 2000.

b. Monitoring shall be performed in the receiving water during dry weather conditions, defined as follows:

i. When the receiving water is the ocean or estuary water body, dry weather occurs on days with less than 0.1 inch of rain and those days not less than three days after a rain event of 0.1 inch or greater within the watershed, as measured from at least 50 percent of Los Angeles County controlled rain gauges within the watershed, or an alternative criterion as provided for in an approved IMP or CIMP.

ii. When the receiving water body is a river, stream or creek, dry weather shall be defined as when the flow is less than 20 percent greater than the base flow or as defined by effective TMDLs within the watershed, or an alternative criterion as provided for in an approved IMP or CIMP.

c. At a minimum the following parameters shall be monitored during dry weather conditions, unless a surrogate pollutant has been approved by the Executive Officer of the Los Angeles Regional Water Board:

i. Flow

ii. Pollutants assigned receiving water limitations derived from TMDL dry weather WLAs,

iii. Other pollutants identified on the CWA Section 303(d) List for the receiving water or downstream receiving waters,

iv. TSS, pH, and hardness, when metals are monitored,

v. Field measurements for monitoring of inland freshwater bodies: dissolved oxygen, pH, temperature, and specific conductance,

vi. Aquatic Toxicity (once per year, during the month with the historically lowest flows).

d. Additionally, the parameters in Table E-2 shall be monitored in the first year of monitoring during the critical dry weather event. If a parameter is not detected at the Method Detection Limit (MDL) for its respective test method or the result is below the lowest applicable water quality objective, and is not otherwise identified in subparts c.i.-c.iii. or c.v.-c.vii. above, it need not be further analyzed. If a parameter is detected exceeding the lowest applicable water quality objective then the parameter shall be analyzed for the remainder of the Order during dry weather at the receiving water monitoring station where it was detected.

Table E-2. Storm Water Monitoring Program's Constituents with Associated Minimum Levels (MLs)[2]

[2] For priority pollutants, MLs published in Appendix 4 of the Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California (SIP) shall be used for all analyses, unless otherwise specified. Method Detection Levels (MDLs) must be lower than or equal to the ML value, unless otherwise approved by the Regional Board.

CONSTITUENTS	MLs
CONVENTIONAL POLLUTANTS	**mg/L**
Oil and Grease	5
Total Phenols	0.1
Cyanide	0.005
pH	0 - 14
Temperature	N/A
Dissolved Oxygen	Sensitivity to 5 mg/L
BACTERIA (single sample limits)	**MPN/100ml**
Total coliform (marine waters)	10,000
Enterococcus (marine waters)	104
Fecal coliform (marine & fresh waters)	400
E. coli (fresh waters)	235
GENERAL	**mg/L**
Dissolved Phosphorus	0.05
Total Phosphorus	0.05
Turbidity	0.1 NTU
Total Suspended Solids	2
Total Dissolved Solids	2
Volatile Suspended Solids	2
Total Organic Carbon	1
Total Petroleum Hydrocarbon	5
Biochemical Oxygen Demand	2
Chemical Oxygen Demand	20-900
Total Ammonia-Nitrogen	0.1
Total Kjeldahl Nitrogen	0.1
Nitrate-Nitrite	0.1
Alkalinity	2
Specific Conductance	1 umho/cm
Total Hardness	2
MBAS	0.5
Chloride	2
Fluoride	0.1
Methyl tertiary butyl ether (MTBE)	1
Perchlorate	4 µg/L
METALS (Dissolved & Total)	**µg/L**
Aluminum	100
Antimony	0.5
Arsenic	1
Beryllium	0.5
Cadmium	0.25
Chromium (total)	0.5
Chromium (Hexavalent)	5
Copper	0.5
Iron	100
Lead	0.5
Mercury	0.5
Nickel	1
Selenium	1
Silver	0.25
Thallium	1
Zinc	1
SEMIVOLATILE ORGANIC COMPOUNDS	

CONSTITUENTS	MLs
ACIDS	**µg/L**
2-Chlorophenol	2
4-Chloro-3-methylphenol	1
2,4-Dichlorophenol	1
2,4-Dimethylphenol	2
2,4-Dinitrophenol	5
2-Nitrophenol	10
ACIDS	**µg/L**
4-Nitrophenol	5
Pentachlorophenol	2
Phenol	1
2,4,6-Trichlorophenol	10
BASE/NEUTRAL	**µg/L**
Acenaphthene	1
Acenaphthylene	2
Anthracene	2
Benzidine	5
1,2 Benzanthracene	5
Benzo(a)pyrene	2
Benzo(g,h,i)perylene	5
3,4 Benzoflouranthene	10
Benzo(k)flouranthene	2
Bis(2-Chloroethoxy) methane	5
Bis(2-Chloroisopropyl) ether	2
Bis(2-Chloroethyl) ether	1
Bis(2-Ethylhexl) phthalate	5
4-Bromophenyl phenyl ether	5
Butyl benzyl phthalate	10
2-Chloroethyl vinyl ether	1
2-Chloronaphthalene	10
4-Chlorophenyl phenyl ether	5
Chrysene	5
Dibenzo(a,h)anthracene	0.1
1,3-Dichlorobenzene	1
1,4-Dichlorobenzene	1
1,2-Dichlorobenzene	1
3,3-Dichlorobenzidine	5
Diethyl phthalate	2
Dimethyl phthalate	2
di-n-Butyl phthalate	10
2,4-Dinitrotoluene	5
2,6-Dinitrotoluene	5
4,6 Dinitro-2-methylphenol	5
1,2-Diphenylhydrazine	1
di-n-Octyl phthalate	10
Fluoranthene	0.05
Fluorene	0.1
Hexachlorobenzene	1
Hexachlorobutadiene	1
Hexachloro-cyclopentadiene	5
Hexachloroethane	1
Indeno(1,2,3-cd)pyrene	0.05

CONSTITUENTS	MLs
Isophorone	1
Naphthalene	0.2
Nitrobenzene	1
N-Nitroso-dimethyl amine	5
N-Nitroso-diphenyl amine	1
N-Nitroso-di-n-propyl amine	5
Phenanthrene	0.05
BASE/NEUTRAL	**µg/L**
Pyrene	0.05
1,2,4-Trichlorobenzene	1
CHLORINATED PESTICIDES	**µg/L**
Aldrin	0.005
alpha-BHC	0.01
beta-BHC	0.005
delta-BHC	0.005
gamma-BHC (lindane)	0.02
alpha-chlordane	0.1
gamma-chlordane	0.1
4,4'-DDD	0.05
4,4'-DDE	0.05
4,4'-DDT	0.01
Dieldrin	0.01
alpha-Endosulfan	0.02
beta-Endosulfan	0.01
Endosulfan sulfate	0.05
Endrin	0.01
Endrin aldehyde	0.01
Heptachlor	0.01
Heptachlor Epoxide	0.01
Toxaphene	0.5
POLYCHLORINATED BIPHENYLS	**µg/L**
Aroclor-1016	0.5
Aroclor-1221	0.5
Aroclor-1232	0.5
Aroclor-1242	0.5
Aroclor-1248	0.5
Aroclor-1254	0.5
Aroclor-1260	0.5
ORGANOPHOSPHATE PESTICIDES	**µg/L**
Atrazine	2
Chlorpyrifos	0.05
Cyanazine	2
Diazinon	0.01
Malathion	1
Prometryn	2
Simazine	2
HERBICIDES	**µg/L**
2,4-D	10
Glyphosate	5
2,4,5-TP-SILVEX	0.5

VII. OUTFALL MONITORING

A. Storm Drains, Channels and Outfalls Map(s) and/or Database. The IMP and/or CIMP shall include a map(s) and/or database of the MS4 to include the following information:

1. Surface water bodies receiving discharges from the MS4
2. Sub-watershed (HUC-12 or HUC-12 equivalent) boundaries
3. Land use overlay
4. Effective Impervious Area (EIA) overlay (if available)
5. Jurisdictional boundaries
6. The location and length of all open channel and underground pipes 18 inches in diameter or greater (with the exception of catch basin connector pipes)
7. The location of all dry weather diversions
8. The location of all major MS4 outfalls within the Discharger's jurisdictional boundary. Each major outfall shall be assigned an alphanumeric identifier, which must be noted on the map
9. Notation of outfalls with significant non-storm water discharges (to be updated annually)
10. Storm drain outfall catchment areas for each major outfall within the Discharger's jurisdiction
11. Each mapped MS4 outfall shall be linked to a database containing descriptive and monitoring data associated with the outfall. The data shall include:
    a. Ownership
    b. Latitude and longitude coordinates
    c. Physical description
    d. Photographs of the outfall, where possible, to provide baseline information to track operation and maintenance needs over time
    e. Determination of whether the outfall conveys significant non-storm water discharges
    f. Storm water and non-storm water monitoring data

VIII. STORM WATER OUTFALL MONITORING

A. Storm Water Outfall Based Monitoring

1. Storm water discharges from the MS4 shall be monitored at outfalls and/or alternative access points such as manholes or in channels at the Discharger's jurisdictional boundary.
2. The Discharger shall consider the following criteria when selecting outfalls for storm water discharge monitoring:

a. The storm water outfall based monitoring program should ensure representative data by monitoring at least one major outfall per subwatershed (HUC-12 or HUC-12 equivalent) drainage area, within the Permittee's jurisdiction, or alternate approaches as approved in an IMP or CIMP.

b. The drainage(s) to the selected outfall(s) shall be representative of the land uses within the Discharger's jurisdiction.

c. If the Discharger implements an IMP, to the extent possible, the selected outfalls shall not receive drainage from another jurisdiction. If this is not possible, the Discharger shall conduct "upstream" and "downstream" monitoring as the system enters and exits the Discharger's jurisdiction.

d. The Discharger shall select outfalls with configurations that facilitate accurate flow measurement and consideration of safety of monitoring personnel.

e. The specific location of sample collection may be within the MS4 upstream of the actual outfall to the receiving water if field safety or accurate flow measurement require it.

B. Minimum Storm Water Outfall Based Monitoring Requirements

1. The IMP and/or CIMP shall incorporate the following minimum requirements for monitoring storm water outfalls:

a. Storm water discharges shall be monitored a minimum of three times per year for all parameters except aquatic toxicity.

b. Monitoring shall be performed at the selected outfalls during wet weather conditions, defined for the purposes of this monitoring program as follows:

i. When the receiving water is the ocean or estuary water body, wet weather occurs during a storm event equal to or greater than 0.1 inch of precipitation, as determined by the closest Los Angeles County rain gauge to the catchment area draining to the outfall, or based on an alternative precipitation threshold as provided for in an approved IMP or CIMP.

ii. When the receiving water body is a river, stream or creek, wet weather shall be defined as when the flow within the receiving water is at least 20 percent greater than the base flow or an alternative threshold as provided for in an approved IMP or CIMP, or as defined by effective TMDLs within the watershed.

iii. Monitoring of storm water discharges shall occur during wet weather conditions resulting from the first rain event of the year, and at least two additional wet weather events within the same wet weather season. The Discharger shall target the first storm event of the storm year with a predicted rainfall of at least 0.25 inch at a seventy percent probability of rainfall at least 24 hours prior to the event start time. The

Discharger shall target subsequent storm events that forecast sufficient rainfall and runoff to meet program objectives and site specific study needs. Sampling events shall be separated by a minimum of three days of dry conditions (less than 0.1 inch of rain each day).

c. At a minimum, the following parameters shall be monitored unless a surrogate pollutant has been approved by the Executive Officer of the Los Angeles Regional Water Board:

i. Flow

ii. Pollutants assigned a WQBEL derived from TMDL WLAs (See Part VIII of this Order),

iii. Other pollutants identified on CWA Section 303(d) List for the receiving water or downstream receiving waters,

iv. Total Suspended Solids (TSS) and Suspended-Sediment Concentration (SSC) if the receiving water is listed on the CWA Section 303(d) list for sedimentation, siltation or turbidity,

v. Field measurements applicable to inland freshwater bodies only: hardness, pH, dissolved oxygen, temperature, and specific conductivity,

vi. Pollutants identified in a TIE conducted at the downstream receiving water monitoring station during the most recent sample event, or where the TIE conducted on the receiving water sample was inconclusive, aquatic toxicity. If the discharge exhibits aquatic toxicity, then a TIE shall be conducted.

d. Other parameters in Table E-2 identified as exceeding the lowest applicable water quality objective in the nearest downstream receiving water monitoring station per Part VI.C.1.e.

C. Sampling Methods

1. Samples shall be collected during the first 24 hours of the storm water discharge or for the entire storm water discharge if it is less than 24 hours.
2. If the Discharger is not participating in a IMP or CIMP, the flow-weighted composite sample for a storm water discharge shall be taken with a continuous sampler, or it shall be taken as a combination of a minimum of 3 sample aliquots, taken in each hour of discharge for the first 24 hours of the discharge or for the entire discharge if the storm event is less than 24 hours, with each aliquot being separated by a minimum of 15 minutes within each hour of discharge, unless the Los Angeles Regional Water Board Executive Officer approves an alternate protocol.

IX. NON-STORM WATER OUTFALL SCREENING AND MONITORING

A. Objectives of the Non-Storm Water Outfall Screening and Monitoring Program

The outfall screening and monitoring process is intended to meet the following objectives.

1. Develop criteria or other means to ensure that all outfalls with significant non-storm water discharges are identified and assessed during the term of this Order.
2. For outfalls determined to have significant non-storm water flow, determine whether flows are the result of illicit connections/illicit discharges (IC/IDs), authorized or conditionally exempt non-storm water flows, natural flows, or from unknown sources.
3. Refer information related to identified IC/IDs to the IC/ID Elimination Program (Part VII.D of this Order) for appropriate action.
4. Based on existing screening or monitoring data or other institutional knowledge, assess the impact of non-storm water discharges (other than identified IC/IDs) on the receiving water.
5. Prioritize monitoring of outfalls considering the potential threat to the receiving water and applicable TMDL compliance schedules.
6. Conduct monitoring or assess existing monitoring data to determine the impact of non-storm water discharges on the receiving water.
7. Conduct monitoring or other investigations to identify the source of pollutants in non-storm water discharges.
8. Use results of the screening process to evaluate the conditionally exempt non-storm water discharges identified in Parts IV.B.2 of this Order and take appropriate actions pursuant to Part IV.B.3 of this Order for those discharges that have been found to be a source of pollutants. Any future reclassification shall occur per the conditions in Parts IV.B.3 of this Order.
9. Maximize Discharger resources by integrating the screening and monitoring process into existing or planned IMP and/or CIMP efforts.

B. Outfall Screening and Monitoring Plan

1. Concurrent with the development of an IMP or CIMP, or within one (1) year of the effective date of this Order, the Discharger shall submit a non-storm water outfall-based screening and monitoring program plan that documents with written procedures an explanation of how the program is to be implemented. The procedures must be updated as needed to reflect the Discharger's program. The plan may be a separate stand-alone document or may be part of an IMP or CIMP.
2. The Discharger shall conduct at least one re-assessment of its non-storm water outfall-based screening and monitoring program during the term of this Order to determine whether changes or updates are needed. Where changes are needed, the Discharger shall make the changes in its written program documents, implement these changes in practice after obtaining approval

from the Los Angeles Regional Board Executive Officer, and describe the changes within the next annual report.

C. Identification of Outfalls with Significant Non-Storm Water Discharge

1. Based on the inventory of MS4 outfalls required under Part VII of this MRP, the Discharger shall identify MS4 outfalls with significant non-storm water discharges. Significant non-storm water discharges may be determined by one or more of the following characteristics:
   - **a.** Discharges from major outfalls subject to dry weather TMDLs.
   - **b.** Discharges for which existing monitoring data exceeds non-storm water Action Levels identified in Attachment G of this Order.
   - **c.** Non-storm water discharges that have caused or have the potential to cause overtopping of downstream diversions.
   - **d.** Discharges exceeding a proposed threshold discharge rate as determined by the Discharger.
   - **e.** Discharges with the largest pollutant loading into the receiving waters;
   - **f.** Other characteristics as determined by the Discharger and incorporated within their screening program plan.

D. Inventory of MS4 Outfalls with Non-Storm Water Discharges

1. The Discharger shall develop and maintain an inventory of MS4 outfalls and identify those with known significant non-storm water discharges and those requiring no further assessment. If the MS4 outfall requires no further assessment, the inventory must include the rationale for the determination of no further action required. This inventory shall be recorded in a database with outfall locations linked to the storm drains, channels and outfalls map required in Part VII.A of this MRP. A GIS version is preferred.
2. As a component of the inventory, the Discharger shall record existing data from past outfall screening and monitoring and initiate data collection efforts as warranted. The data shall include the physical attributes of those MS4 outfalls or alternative monitoring locations determined to have significant non-storm water discharges. Attributes to be obtained shall, at a minimum, include:
   - **a.** Date and time of last visual observation or inspection
   - **b.** Outfall alpha-numeric identifier
   - **c.** Description of outfall structure including size (e.g., diameter and shape)
   - **d.** Description of receiving water at the point of discharge (e.g., natural, soft-bottom with armored sides, trapezoidal, concrete channel)
   - **e.** Latitude/longitude coordinates
   - **f.** Nearest street address

g. Parking, access, and safety considerations

h. Photographs of outfall condition

i. Photographs of significant non-storm water discharge (or indicators of discharge) unless safety considerations preclude obtaining photographs

j. Estimation of discharge rate

k. All diversions either upstream or downstream of the outfall

l. Observations regarding discharge characteristics such as turbidity, odor, color, presence of debris, floatables, or characteristics that could aid in pollutant source identification.

4. Each year, the storm drains, channels and outfalls map and associated outfall database required in Part VII.A of the MRP shall be updated to incorporate the most recent characterization data for outfalls with significant non-storm water discharge.

E. Prioritized Source Identification

1. Outfalls within the inventory shall be prioritized in the following order (a= highest priority, etc.) for source identification activities:

   a. Outfalls discharging directly to receiving waters with WQBELs or receiving water limitations in the TMDL provisions for which final compliance deadlines have passed.

   b. All major outfalls and other outfalls that discharge to a receiving water subject to a TMDL shall be prioritized according to TMDL compliance schedules.

   c. Outfalls for which monitoring data exist and indicate recurring exceedances of one or more of the Action Levels identified in Attachment G of this Order.

   d. All other major outfalls identified to have significant non-storm water discharges.

2. The Discharger shall develop a source identification schedule based on the prioritized list of outfalls exhibiting significant non-storm water discharges. The schedule shall ensure that source investigations are conducted for no less than 25% of the outfalls in the inventory within three years of the effective date of this Order and 100% of the outfalls in the inventory within 5 years of the effective date of this Order.

3. Alternatively, the Discharger may request an alternative prioritization and schedule from the Los Angeles Regional Water Board if it can demonstrate an equivalent level of source investigation and abatement through an approved IMP or CIMP.

F. Identify Source(s) of Significant Non-Storm Water Discharge

1. If the source is determined to be an illicit discharge, the Discharger shall implement procedures to eliminate the discharge consistent with IC/ID requirements and document the actions in the next annual report.
2. If the source is determined to be an NPDES permitted discharge, a discharge subject to a Record of Decision approved by USEPA pursuant to Section 121 of CERCLA, a conditionally exempt essential non-storm water discharge, or entirely comprised of natural flows as defined at Part IV.B.2 of this Order, the Discharger shall document the source and report it to the Los Angeles Regional Water Board in the next annual report.
3. If the source is either unknown or a conditionally exempt, but non-essential, non-storm water discharge, the Discharger shall conduct monitoring required in Part IX.G of this MRP.
4. If the discharge is comprised of more than one source, the Discharger shall attempt to quantify the relative contribution from the individual or group of similar sources (e.g., irrigation overspray) and classify the contributions as authorized, conditionally exempt essential, natural, illicit discharge, conditionally exempt non-essential, or unknown.
5. If the source of non-storm water discharge is unknown, the Discharger shall describe the efforts undertaken to identify the source. Methods for identifying the source of non-storm water discharge may include inspection and/or surveillance, discharge monitoring and data loggers, video or physical inspection, monitoring for indicator parameters (e.g., surfactants, chlorine, Pyrethroids), or other means.
6. If a source originates within an upstream jurisdiction, the Discharger shall inform in writing both the upstream jurisdiction and the Los Angeles Regional Water Board within 30 days of determination of the presence of the discharge, all available characterization data, contribution determination efforts, and efforts taken to identify its source.
7. MS4 outfalls requiring no further action shall continue to be included in the storm drains, channels and outfalls map and associated database (see Part VII.A. of this MRP).

G. Monitor Non-Storm Water Discharges Exceeding Criteria

1. Within 90 days after completing the source identification or after the Los Angeles Regional Board Executive Officer approves the IMP or CIMP, whichever is later, the Discharger shall monitor outfalls that have been determined to convey significant discharges comprised of either unknown or conditionally exempt non-storm water discharges, or continuing discharges attributed to illicit discharges. The following parameters shall be monitored:
   a. Flow,
   b. Pollutants assigned a WQBEL or receiving water limitation to implement TMDL Provisions for the respective receiving water, as identified in Part VIII of this Order,

c. Other pollutants identified on the CWA Section 303(d) List for the receiving water or downstream receiving waters,

d. Pollutants identified in a TIE conducted in response to observed aquatic toxicity during dry weather at the nearest downstream receiving water monitoring station during the last sample event or, where the TIE conducted on the receiving water sample was inconclusive, aquatic toxicity. If the discharge exhibits aquatic toxicity, then a TIE shall be conducted.

e. Other parameters in Table E-2 identified as exceeding the lowest applicable water quality objective in the nearest downstream receiving water monitoring station per Part VI.A.

2. For outfalls subject to a dry weather TMDL, monitoring frequency shall be per the approved TMDL Monitoring Plan or as otherwise specified in the TMDL, or as specified in an IMP or CIMP approved by the Executive Officer of the Los Angeles Regional Water Board.

3. For outfalls not subject to dry weather TMDLs, monitoring frequency shall be four times during the first year following source identification, distributed approximately quarterly, during dry weather conditions or as specified in an IMP or CIMP approved by the Executive Officer of the Los Angeles Regional Water Board.

4. Except as required by an applicable TMDL Monitoring Plan, IMP, or CIMP approved by the Executive Officer of the Los Angeles Regional Water Board, monitoring frequency may be reduced to twice per year, beginning in the second year of monitoring, if pollutant concentrations measured during the first year do not exceed WQBELs, non-storm water Action Levels or water quality standards for other pollutants identified on the CWA Section 303(d) List for the receiving water or downstream receiving waters.

5. Following one year of monitoring, the Discharger may submit a written request to the Executive Officer of the Los Angeles Regional Water Board to reduce or eliminate monitoring of specified pollutants, based on an evaluation of the monitoring data.

H. Sampling Methods

1. For the purposes of this monitoring program, non-storm water discharges shall be monitored during days when precipitation is < 0.1 inch and those days not less than 3 days after a rain day unless an alternative criterion is provided for in an approved IMP or CIMP. A rain day is defined as those with >= 0.1 inch of rain.

2. Flow-weighted composite samples shall be taken for a non-storm water discharge using a continuous sampler, or it shall be taken as a combination of a minimum of 3 sample aliquots, taken in each hour during a 24-hour period, unless the Los Angeles Regional Water Board Executive Officer approves an alternate protocol.

X. NEW DEVELOPMENT/RE-DEVELOPMENT EFFECTIVENESS TRACKING

A. The Discharger shall maintain a database providing the following information for each new development/re-development subject to the requirements of Part VII.D of this Order that is approved by the Discharger on or after the effective date of this Order:

1. Name of the Project and Developer,
2. Project location and map (preferably linked to the GIS storm drain map),
3. Date of Certificate of Occupancy,
4. 85th percentile storm event for the project design (inches per 24 hours),
5. Project design storm (inches per 24-hours),
6. Project design storm volume (gallons or MGD),
7. Percent of design storm volume to be retained on site,
8. Design volume for water quality mitigation treatment BMPs, if any.
9. If flow through, water quality treatment BMPs are approved, provide the one-year, one-hour storm intensity as depicted on the most recently issued isohyetal map published by the Los Angeles County Hydrologist,
10. Percent of design storm volume to be infiltrated at an off-site mitigation or groundwater replenishment project site,
11. Percent of design storm volume to be retained or treated with biofiltration at an off-site retrofit project,
12. Location and maps (preferably linked to the GIS storm drain map required in Part VII.A of this MRP) of off-site mitigation, groundwater replenishment, or retrofit sites,
13. Documentation of issuance of requirements to the developer.

XI. REGIONAL STUDIES

A. Southern California Stormwater Monitoring Coalition Watershed Monitoring Program

1. The Southern California Stormwater Monitoring Coalition (SMC) Regional Watershed Monitoring Program was initiated in 2008. This program is conducted in collaboration with the Southern California Coastal Water Research Project (SCCWRP), State Water Board's Surface Water Ambient Monitoring Program, three Southern California Regional Water Quality Control Boards (Los Angeles, Santa Ana, and San Diego) and several county storm water agencies (Los Angeles, Ventura, Orange, Riverside, San Bernardino and San Diego). SCCWRP acts as the facilitator to organize the program and completes data analysis and report preparation.
2. The SMC monitoring program seeks to coordinate and leverage existing monitoring efforts to produce regional estimates of condition, improve data

comparability and quality assurance, and maximize data availability, while conserving monitoring expenditures. The primary goal of this program is to implement an ongoing, large-scale regional monitoring program for southern California's coastal streams and rivers. The monitoring program addresses three main questions:

a. What is the condition of streams in southern California?

b. What are the stressors that affect stream condition?; and

c. Are conditions getting better or worse?

3. A comprehensive program was designed by the SMC, in which each participating group assesses its local watersheds and then contributes their portion to the overall regional assessment. The program utilizes the following indicators: benthic macroinvertebrate community bioassessment, benthic algal community bioassessment (soft algae and diatoms), riparian wetland evaluation (using California Rapid Assessment Methodology), water chemistry (nutrients and certain pesticides), water toxicity (using *Ceriodaphnia*), and physical habitat. Sampling occurs in 15 coastal southern California watersheds from Ventura to the US-Mexico border, and sites are sampled randomly across three land use types (open space, urban and agriculture). Six sites are sampled per year per watershed, resulting in monitoring of 90 sites per year and 450 sites overall over a five-year period (reaching the statistically desirable target of 30 data points per watershed).

4. To continue to implement the SMC design, the Discharger shall be responsible for supporting the monitoring described at the sites within the watershed management area(s) that overlap with the Discharger's jurisdictional area. The Discharger shall continue to contribute monitoring resources to the San Gabriel River and Los Angeles River Regional Watershed Monitoring Programs (overall, both of these programs fund six sites per year to contribute to the SMC Program).

XII. AQUATIC TOXICITY MONITORING METHODS

A. Aquatic Toxicity Monitoring as required in Parts VI (Receiving Water Monitoring), VIII (Storm Water Outfall Based Monitoring), and IX (Non-storm Water Outfall Based Monitoring) of this MRP, shall be conducted according to the procedures described in this Part. When the State Water Board's *Policy for Toxicity Assessment and Control* is fully approved and in effect, the Los Angeles Regional Water Board Executive Officer may direct the Discharger to replace current toxicity program elements with standardized procedures in the policy.

B. The Discharger shall collect and analyze samples taken from receiving water monitoring locations to evaluate the extent and causes of toxicity in receiving waters.

C. Toxicity samples may be flow-weighted composite samples, or grab samples, for wet and dry event sampling.

D. The total sample volume shall be determined both by the specific toxicity test method used and the additional volume necessary for TIE studies. Sufficient sample volume shall be collected to perform both the required toxicity tests and TIE studies.

E. Holding Times. All toxicity tests shall be conducted as soon as possible following sample collection. The 36-hour sample holding time for test initiation shall be targeted. However, no more than 72 hours shall elapse before the conclusion of sample collection and test initiation.

F. Definition of Chronic Toxicity. Chronic toxicity measures a sublethal effect (e.g., reduced growth, reproduction) to experimental test organisms exposed to an effluent or receiving waters compared to that of the control organisms.

G. Chronic Toxicity Monitoring Programs.

1. Freshwater Test Species and Methods.

If samples are collected in receiving waters with salinity <1 ppt, or from outfalls discharging to receiving waters with salinity <1 ppt, then the Discharger shall conduct the following critical life stage chronic toxicity tests on undiluted samples in accordance with species and short-term test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002; Table IA, 40 CFR Part 136). In no case shall the following test species be substituted with another organism unless written authorization from the Los Angeles Regional Water Board Executive Officer is received.

i. A static renewal toxicity test with the fathead minnow, *Pimephales promelas* (Larval Survival and Growth Test Method 1000.0[3]).

ii. A static renewal toxicity test with the daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0[5]).

iii. A static renewal toxicity test with the green alga, *Selenastrum capricornutum* (also named *Raphidocelis subcapitata*) (Growth Test Method 1003.0).

2. Marine and Estuarine Test Species and Methods.

If samples are collected in receiving waters with salinity ≥1 ppt, or from outfalls discharging to receiving waters with salinity ≥1 ppt, then the Discharger shall conduct the following critical life stage chronic toxicity tests on undiluted samples in accordance with species and short-term test methods in *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995). Artificial sea salts shall be used to increase sample salinity. In no case shall the following test species be substituted with

[3] Daily observations for mortality make it possible to calculate acute toxicity for desired exposure periods (e.g., a 7-day acute endpoint).

another organism unless written authorization from the Regional Water Board Executive Officer is received.

a. A static renewal toxicity test with the topsmelt, *Atherinops affinis* (Larval Survival and Growth Test Method 1006.01[5]);

b. A static non-renewal toxicity test with the purple sea urchin, *Strongylocentrotus purpuratus* (Fertilization Test Method 1008.0); and

c. A static non-renewal toxicity test with the giant kelp, *Macrocystis pyrifera* (Germination and Growth Test Method 1009.0).

3. Test Species Sensitivity Screening.

To determine the most sensitive test species, the Discharger shall conduct two wet weather and one dry weather toxicity tests with a vertebrate, an invertebrate, and a plant. After this screening period, subsequent monitoring shall be conducted using the most sensitive test species. Alternatively, if a sensitive test species has already been determined, or if there is prior knowledge of potential toxicant(s) and a test species is sensitive to such toxicant(s), then monitoring shall be conducted using only that test species. Sensitive test species determinations shall also consider the most sensitive test species used for proximal receiving water monitoring. After the screening period, subsequent monitoring shall be conducted using the most sensitive test species. Rescreening shall occur in the fourth year of the permit term.

4. Chronic toxicity test biological endpoint data shall be analyzed using the Test of Significant Toxicity t-test approach specified in *National Pollutant Discharge Elimination System Test of Significant Toxicity Implementation Document* (U.S. Environmental Protection Agency, Office of Wastewater Management, Washington, D.C. EPA 833-R-10-003, 2010). For this monitoring program, the critical chronic instream waste concentration (IWC) is set at 100% receiving water for receiving water samples and 100% effluent for wet- and dry-weather outfall samples. A 100% receiving water/outfall effluent sample and a control shall be tested.

H. Quality Assurance.

1. If the receiving water or outfall effluent test does not meet all test acceptability criteria (TAC) specified in the test methods manuals (*Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013, 2002) and *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to West Coast Marine and Estuarine Organisms* (EPA/600/R-95/136, 1995)), then the Discharger must re-sample and re-test at the earliest time possible.

2. Control water, including brine controls, shall be laboratory water prepared and used as specified in the test methods manuals.

3. If organisms are not cultured in-house, then concurrent testing with a reference toxicant shall be conducted. If organisms are cultured in-house, then monthly reference toxicant testing is sufficient. Reference toxicant tests

and effluent toxicity tests shall be conducted using the same test conditions (e.g., same test duration, etc.).

I. Toxicity Identification Evaluation (TIE).

1. A toxicity test sample is immediately subject to TIE procedures to identify the toxic chemical(s), if either the survival or sublethal endpoint demonstrates a percent effect value equal to or greater than 50% at the IWC. Percent effect is defined as the effect value—denoted as the difference between the mean control response and the mean IWC response, divided by the mean control response—multiplied by 100.

2. A TIE shall be performed to identify the causes of toxicity using the same species and test method and, as guidance, U.S. EPA manuals: *Toxicity Identification Evaluation: Characterization of Chronically Toxic Effluents, Phase I* (EPA/600/6-91/005F, 1992); *Methods for Aquatic Toxicity Identification Evaluations, Phase II Toxicity Identification Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/080, 1993); *Methods for Aquatic Toxicity Identification Evaluations, Phase III Toxicity Confirmation Procedures for Samples Exhibiting Acute and Chronic Toxicity* (EPA/600/R-92/081, 1993); and *Marine Toxicity Identification Evaluation (TIE): Phase I Guidance Document* (EPA/600/R-96-054, 1996).

3. The TIE should be conducted on the test species demonstrating the most sensitive toxicity response at a sampling station. A TIE may be conducted on a different test species demonstrating a toxicity response with the caveat that once the toxicant(s) are identified, the most sensitive test species triggering the TIE shall be further tested to verify that the toxicant has been identified and addressed.

4. A TIE Prioritization Metric (see Appendix 5 in SMC Model Monitoring Program) may be utilized to rank sites for TIEs.

J. Toxicity Reduction Evaluation (TRE).

1. When a toxicant or class of toxicants is identified through a TIE conducted at a receiving water monitoring station, the Discharger shall analyze for the toxicant(s) during the next scheduled sampling event in the discharge from the outfall(s) upstream of the receiving water location.

2. If the toxicant is present in the discharge from the outfall at levels above the applicable receiving water limitation, a TRE shall be performed for that toxicant.

3. The TRE shall include all reasonable steps to identify the source(s) of toxicity and discuss appropriate BMPs to eliminate the causes of toxicity. No later than 30 days after the source of toxicity and appropriate BMPs are identified, the Discharger shall submit a TRE Corrective Action Plan to the Regional Water Board Executive Officer for approval. At minimum, the plan shall include a discussion of the following:

   a. The potential sources of pollutant(s) causing toxicity.

b. A list of municipalities and agencies that may have jurisdiction over sources of pollutant(s) causing toxicity.

c. Recommended BMPs to reduce the pollutant(s) causing toxicity.

d. Proposed post-construction control measures to reduce the pollutant(s) causing toxicity.

e. Follow-up monitoring to demonstrate that the toxicants have been reduced or eliminated.

4. The TRE process shall be coordinated with TMDL development and implementation (i.e., if a TMDL for 4,4'-DDD is being implemented when a TRE for 4,4'-DDD is required, then efforts shall be coordinated to avoid overlap).

K. Chronic Toxicity Reporting

1. Aquatic toxicity monitoring results submitted to the Regional Water Board shall be consistent with the requirements identified in Part XIV.L and M and Part XVIII.A.5 and A.7 of the MRP.

2. The Annual Report in Part XVIII of the MRP shall include:

a. A full laboratory report for each chronic toxicity test prepared according to the appropriate test methods manual chapter on Report Preparation, including:

i. The chronic toxicity test results for the t-test, reported as "Pass" or "Fail", and the "Percent Effect".

ii. The dates of sample collection and initiation of each toxicity test.

iii. Test species with biological endpoint values for each concentration tested.

iv. Reference toxicant test results.

v. Water quality measurements for each toxicity test (e.g., pH, dissolved oxygen, temperature, conductivity, hardness, salinity, chlorine, ammonia).

vi. TRE/TIE testing results.

vii. A printout of CETIS (Comprehensive Environmental Toxicity Information System) program results.

b. All results for receiving water or outfall effluent parameters monitored concurrently with the toxicity test.

c. TIEs (Phases I, II, and III) that have been completed or are being conducted, by monitoring station.

d. The development, implementation, and results for each TRE Corrective Action Plan, beginning the year following the identification of each pollutant or pollutant class causing chronic toxicity.

XIII. SPECIAL STUDIES

A. The Discharger shall be responsible for conducting special studies required in an effective TMDL or an approved TMDL Monitoring Plan applicable to a watershed that transects its political boundary.

XIV. STANDARD MONITORING AND REPORTING PROVISIONS

A. All monitoring and reporting activities shall meet the following requirements.

1. Monitoring and Records [40 CFR § 122.41(j)(1)]

a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

b. Monitoring and Records [40 CFR § 122.41(j)(2)] [California Water Code § 13383(a)]

i. The Discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the Report of Waste Discharge (ROWD) and application for this Order, for a period of at least three (3) years from the date of the sample, measurement, report, or application. This period may be extended by request of the Regional Water Board Executive Officer or USEPA at any time.

c. Monitoring and Records [40 CFR § 122.41(j)(3)]

i. Records of monitoring information shall include:

1. The date, time of sampling or measurements, exact place, weather conditions, and rain fall amount.

2. The individual(s) who performed the sampling or measurements.

3. The date(s) analyses were performed.

4. The individual(s) who performed the analyses.

5. The analytical techniques or methods used.

6. The results of such analyses.

7. The data sheets showing toxicity test results.

d. Monitoring and Records [40 CFR § 122.41(j)(4)]. All monitoring, sampling, sample preservation, and analyses must be conducted according to test procedures approved under 40 CFR Part 136 for the analysis of pollutants, unless another test procedure is required under 40 CFR subchapter N or O or is otherwise specified in this Order for such pollutants. If a particular Minimum Level (ML) is not attainable in accordance with procedures set forth in 40 CFR Part 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure may be used instead.

e. Monitoring and Records [40 CFR § 122.41(j)(5)]. The CWA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than $10,000, or by imprisonment for not more than 2 years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than $20,000 per day of violation, or by imprisonment of not more than four years, or both.

B. All chemical, bacteriological, and toxicity analyses shall be conducted at a laboratory that is:

1. Certified for such analyses by an appropriate governmental regulatory agency.
2. A participant in "Intercalibration Studies" for storm water pollutant analysis conducted by the SMC.[4]
3. Which performs laboratory analyses consistent with the storm water monitoring guidelines as specified in, the *Stormwater Monitoring Coalition Laboratory Guidance Document,* 2nd Edition R. Gossettt and K. Schiff (2007), and its revisions.

C. For priority toxic pollutants that are identified in the CTR (40 CFR § 131.38), the MLs published in Appendix 4 of the *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays and Estuaries of California* (SIP) shall be used for all analyses, unless otherwise specified.

D. The Monitoring Report shall specify the analytical method used, the Method Detection Level (MDL) and the ML for each pollutant. For the purpose of reporting compliance with numerical limitations, performance goals, and receiving water limitations, analytical data shall be reported with one of the following methods, as appropriate:

1. An actual numerical value for sample results greater than or equal to the ML.
2. "Not-detected (ND)" for sample results less than the laboratory's MDL with the MDL indicated for the analytical method used.
3. "Detected, but Not Quantified (DNQ)" if results are greater than or equal to the laboratory's MDL but less than the ML. The estimated chemical concentration of the sample shall also be reported. This is the concentration that results from the confirmed detection of the substance by the analytical method below the ML value.

[4] The 'Intercalibration Studies' are conducted periodically by the SMC to establish a consensus based approach for achieving minimal levels of comparability among different testing laboratories for storm water samples to minimize analytical procedure bias. Stormwater Monitoring Coalition Laboratory Document, Technical Report 420 (2004) and subsequent revisions and augmentations.

E. For priority toxic pollutants, if the Discharger can demonstrate that a particular ML is not attainable, in accordance with procedures set forth in 40 CFR Part 136, the lowest quantifiable concentration of the lowest calibration standard analyzed by a specific analytical procedure (assuming that all the method specified sample weights, volumes, and processing steps have been followed) may be used instead of the ML listed in Appendix 4 of the SIP. The Discharger must submit documentation from the laboratory to the Regional Water Board Executive Officer for approval prior to raising the ML for any constituent.

F. Monitoring Reports [40 CFR § 122.41(l)(4)(ii)].

1. If the Discharger monitors any pollutant more frequently than required by this Order using test procedures approved under 40 CFR Part 136, or another method specified in this Order, the results of such monitoring shall be included in the calculation and reporting of the data submitted in the Annual Monitoring Reports.

G. Monitoring Reports [40 CFR § 122.41(l)(4)(iii)]

1. Calculations for all limitations, which require averaging of measurements, shall utilize an arithmetic mean unless otherwise specified in this Order.

H. If no flow occurred during the reporting period, then the Monitoring Report shall so state.

I. The Regional Water Board or its Executive Officer, consistent with 40 CFR section 122.41, may approve changes to the Monitoring and Reporting Program, after providing the opportunity for public comment, either:

1. By request of the Discharger or by an interested person after submittal of the Monitoring Report. Such request shall be in writing and filed not later than 60 days after the Monitoring Report submittal date, or

2. As deemed necessary by the Regional Water Board Executive Officer, following notice to the Discharger.

J. The Discharger must provide a copy of the Standard Operation Procedures (SOPs) for the Monitoring and Reporting Program to the Regional Water Board upon request. The SOP will consist of five elements: Title page, Table of Contents, Procedures, Quality Assurance/ Quality Control (QA/ QC), and References. Briefly describe the purpose of the work or process, including any regulatory information or standards that are appropriate to the SOP process, and the scope to indicate what is covered. Denote what sequential procedures should be followed, divided into significant Sections; e.g., possible interferences, equipment needed, equipment/instrument maintenance and calibration, personnel qualifications, and safety considerations. Describe QA/ QC activities, and list any cited or significant references.

K. When monitoring cannot be performed to comply with the requirements of this Order due to circumstances beyond the Discharger's control, then within two working days, the following shall be submitted to the Regional Water Board Executive Officer:

1. Statement of situation.
2. Explanation of circumstance(s) with documentation.
3. Statement of corrective action for the future.

L. Results of monitoring from each receiving water or outfall based monitoring station conducted in accordance with the Standard Operating Procedure submitted under Standard Provision 14 of this MRP shall be sent electronically per the Regional Water Board's paperless office guidelines to the Regional Water Board's Storm Water at losangeles@waterboards.ca.gov, semi-annually, highlighting exceedances of applicable WQBELs, receiving water limitations, action levels, or aquatic toxicity thresholds for all test results, with corresponding sampling dates per receiving water monitoring station. The sample data transmitted shall be in the most recent update of the Southern California Municipal Storm Water Monitoring Coalition's (SMC) Standardized Data Transfer Formats (SDTFs).

XV. ANNUAL REPORT SUBMITTAL TIMELINES

A. The Discharger shall submit an annual report no later than December 15, 2014 and annually thereafter to the Regional Water Board. The Discharger shall submit the annual report in hard copy and electronically to losangeles@waterboards.ca.gov per the Regional Board's paperless office guidelines. The monitoring data shall be submitted in SWAMP format compatible with Microsoft Excel 2010 or newer version.

XVI. ANNUAL REPORTING REQUIREMENT OBJECTIVES

A. The annual reporting process is intended to meet the following objectives.

1. Present summary information that allows the Regional Water Board to assess overall compliance with this Order and answer the following:
   - **a.** Are the surface waters receiving the Discharger's MS4 discharge meeting water quality standards during the wet and dry season?
   - **b.** What are the annual MS4 pollutant loadings to the receiving waters during the wet and dry season?
   - **c.** What are the individual and median pollutant concentrations in the outfalls by season?
   - **d.** What are the general sources (areas of concern) of the pollutant loadings into receiving waters during the dry and wet season?
   - **e.** What are the specific sources of the pollutant loadings into receiving waters during the dry and wet season?
   - **f.** How many facilities did the Discharger inspect during the year? How many of these facilities have coverage under the General Permit for Stormwater Discharges Associated with Industrial Facilities? What are the SIC codes of these facilities? What types of enforcement actions were taken this year

for these facilities? What percentage of the facilities located within the discharger's jurisdiction did the Discharger inspect during the year? What type of follow up actions did the Discharger implement to ensure the facilities implemented corrective actions?

g. How many Discharger owned/operated facilities did the Discharger inspect during the year? What percentage of the Discharger owned/operated facilities did the Discharger inspect during the year? What corrective actions were required of these facilities? What type of follow up actions did the Discharger implement to ensure the facilities implemented corrective actions?

h. How many construction sites were inspected during the year? How many of these construction projects were inspected more than once? How many of these construction projects are covered under the General Permit for Discharges Associated with Construction Activity. What types of enforcement actions were taken this year for these construction projects? What percentage of the construction projects located within the discharger's jurisdiction did the Discharger inspect? What type of follow up actions did the Discharger implement to ensure the facilities implemented corrective actions?

i. How much did the Discharger spend during the year in complying with Order No.R4-2014-0024 and how much does the Discharger plan on spending in the upcoming year? The Discharger shall divide the funding into the various categories in Order R4-2014-0024, these include but are not limited to: industrial inspections and enforcement, construction inspections and enforcement, new development plan reviews, non TMDL monitoring, TMDL monitoring, public education, source identification, illegal discharge identification and enforcement, program planning and implementation. What are the sources of funding for the past and upcoming year?

j. What is the legal authority the Discharger has to control the contribution of pollutants to the MS4 (storm water and non-storm water), prohibit non-storm water discharges, eliminate and prohibit illicit discharges or connections to the MS4, require compliance with conditions in the Discharger's ordinances, permits, contracts or orders to hold dischargers to its MS4 accountable for their contributions of pollutants and flows, control the contribution of pollutants form one portion of the MS4 to another ? What measures does the Discharger implement to address discharges from facilities outside of the Discharger's jurisdiction? Please provide the citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR sections 122.26(d)(2)(i)(A)-(F) and of this Order; and the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system.

k. How many watershed management programs does the Discharger participate in? Please list the watershed management programs and the status of the participation.

l. Are annual pollutant loadings and concentrations in each surface water body receiving the MS4 discharge increasing decreasing or staying the same?

m. How often does the MS4 discharge exceed receiving water limitations, numeric water quality-based effluent limitations, prohibitions, and non-storm water action levels for each receiving water body per year during the wet and dry season?

n. What is the status of compliance with all applicable water quality based effluent limitations and receiving water limitations in Part VI.A. and VIII of this Order?

o. How effective are the current control measures in reducing discharges of pollutants from the MS4 to receiving waters to the MEP?

p. How effective is the monitoring program at meeting the objectives specified above?

q. Can changes in water quality be attributed to pollutant controls imposed on new development, re-development, or retrofit projects?

r. What detailed data or information has the Discharger included in the annual report to demonstrate compliance with Order No.R4-2014-xxx?

s. What public education programs did the Discharger implement this year and plans to implement the upcoming year?

t. What progress has the Discharger made in implementing the provisions of this Order?

2. Provide a forum to discuss the effectiveness of past and ongoing control measure efforts and to convey plans for future control measures and propose any changes to the storm water management programs.

3. Present data and conclusions in a transparent manner so as to allow review and understanding by the general public.

4. Focus the reporting efforts on watershed condition, water quality assessment, and an evaluation of the effectiveness of control measures.

XVII. WATERSHED SUMMARY INFORMATION, ORGANIZATION AND CONTENT

A. The Discharger shall include the information requested in A.1 through A.3 below in its odd year Annual Report (e.g., Year 1, 3, 5). The requested information shall be provided for each watershed within the Discharger's jurisdiction. Alternatively, if the Discharger is participating in a Watershed Management Program, the Discharger may provide the requested information through the development and submission of a Watershed Management Program plan and any updates thereto.

1. **Watershed Management Area**

   If the Discharger has individually or collaboratively developed a Watershed Management Program Plan (WMPP) as described in Part VII.C of this Order, reference to the Watershed Management Program plan and any revisions thereto may suffice for baseline information regarding the Watershed Management Area.

   a. The following information shall be included for each Watershed Management Area within the Discharger jurisdiction, where not included in a WMPP:

      i. A description of effective TMDLs, applicable WQBELs and receiving water limitations, and implementation and reporting requirements, and compliance dates

      ii. CWA Section 303(d) listings of impaired waters not addressed by TMDLs

      iii. Results of regional bioassessment monitoring

      iv. Description of groundwater recharge areas including number and acres

      v. Maps and/or aerial photographs identifying the location of ESAs, ASBS, and groundwater recharge areas

2. **Subwatershed (HUC-12) Description.** The following information shall be included for each Subwatershed (HUC-12 or HUC-12 equivalent) within the Discharger's jurisdiction. If the Discharger has individually or collaboratively developed a WMPP as described in Part VII.C of this Order, reference to the WMPP and any revisions thereto may suffice for baseline information regarding the subwatershed (HUC-12) descriptions, where the required information is already included in the WMPP. The summary information describing the subwatershed shall include the following information:

   a. Description including HUC-12 number, name and a list of all tributaries named in the Basin Plan

   b. Land Use map of the HUC-12 subwatershed

   c. 85th percentile, 24-hour rainfall isohyetal map for the subwatershed

   d. One-year, one-hour storm intensity isohyetal map for the subwatershed

   e. MS4 map for the subwatershed, including major MS4 outfalls and all low-flow diversions

3. **Description of the Discharger Drainage Area within the Subwatershed.** Where a Discharger has individually or collaboratively developed a WMP as described in Part VII.C of this Order, reference to the WMP and any revisions thereto may suffice for baseline information regarding the Discharger's Drainage Area within the subwatershed (HUC-12), where the required information is already included in the Watershed Management Program. The

following information shall be included for each jurisdiction within the subwatershed (HUC-12):

a. A subwatershed map depicting the Discharger's jurisdictional area and the MS4, including major outfalls (with identification numbers), and low flow diversions (with identifying names or numbers) located, within the Discharger's jurisdiction.

b. Provide the estimated baseline percent of effective impervious area (EIA) within the Discharger jurisdictional area as existed at the time that this Order became effective.

XVIII. ANNUAL ASSESSMENT AND REPORTING

A. The Discharger shall include the information requested in A.1 through A.7 below in its Annual Report. The requested information shall be provided for each watershed within the Discharger's jurisdiction. The Discharger shall format its Annual Report to align with the reporting requirements identified in Parts A.1 through A.7 below.

The Annual Report shall clearly identify all data collected and strategies, control measures, and assessments implemented by the Discharger within its jurisdiction as well as those implemented by the Discharger in coordination with other entities on a watershed scale.

1. **Storm Water Control Measures.** The Discharger shall make all reasonable efforts to determine, compile, analyze, and summarize the following information.

   a. Estimated cumulative change in percent EIA since the effective date of this Order and, if possible, the estimated change in the storm water runoff volume during the 85th percentile storm event.

   b. Summary of New Development/Re-development Projects constructed within the Discharger jurisdictional area during the reporting year.

   c. Summary of Retrofit Projects that reduced or disconnected impervious area from the MS4 during the reporting year.

   d. Summary of other projects designed to intercept storm water runoff prior to discharge to the MS4 during the reporting year.

   e. For the projects summarized above in 1.b through 1.d, estimate the total runoff volume retained on site by the implemented projects.

   f. Summary of actions taken in compliance with TMDL implementation plans or approved Watershed Management Programs to implement TMDL provisions in Part VIII of this Order.

   g. Summary of riparian buffer/wetland restoration projects completed during the reporting year. For riparian buffers include width, length and vegetation type; for wetland include acres restored, enhanced or created.

h. Summary of other Minimum Control Measures implemented during the reporting year, as the Discharger deems relevant.

i. Status of all multi-year efforts that were not completed in the current year and will therefore continue into the subsequent year(s). Additionally, if any of the requested information cannot be obtained, the Discharger shall provide a discussion of the factor(s) limiting its acquisition and steps that will be taken to improve future data collection efforts.

2. Effectiveness Assessment of Storm Water Control Measures

a. Rainfall summary for the reporting year. Summarize the number of storm events, highest volume event (inches/24 hours), highest number of consecutive days with measureable rainfall, total rainfall during the reporting year compared to average annual rainfall for the subwatershed. Precipitation data may be obtained from Los Angeles County Department of Public Works rain gauge stations available at http://www.ladpw.org/wrd/precip/.

b. Provide a summary table describing rainfall during storm water outfall and wet-weather receiving water monitoring events. The summary description shall include the date, time that the storm commenced and the storm duration in hours, the highest 15-minute recorded storm intensity (converted to inches/hour), the total storm volume (inches), and the time between the storm event sampled and the end of the previous storm event.

c. Where control measures were designed to reduce impervious cover or storm water peak flow and flow duration, provide hydrographs or flow data of pre- and post-control activity for the 85th percentile, 24-hour rain event, if available.

d. Provide an assessment as to whether the quality of storm water discharges as measured at designed outfalls is improving, staying the same or declining. The Discharger may compare water quality data from the reporting year to previous years with similar rainfall patterns, conduct trends analysis, or use other means to develop and support its conclusions (e.g., use of non-storm water action levels or municipal action levels as provided in Attachment G of this Order).

e. Provide an assessment as to whether wet-weather receiving water quality within the jurisdiction of the Discharger is improving, staying the same or declining, when normalized for variations in rainfall patterns. The Discharger may compare water quality data from the reporting year to previous years with similar rainfall patterns, conduct trends analysis, draw from regional bioassessment studies, or use other means to develop and support its conclusions.

f. Status of all multi-year efforts, including TMDL implementation, that were not completed in the current year and will continue into the subsequent year(s). Additionally, if any of the requested information cannot be

obtained, the Discharger shall provide a discussion of the factor(s) limiting its acquisition and steps that will be taken to improve future data collection efforts.

3. Non-Storm Water Control Measures

a. Estimate the number of major outfalls within the Discharger's jurisdiction in the subwatershed.

b. Provide the number of outfalls that were screened for significant non-storm water discharges during the reporting year.

c. Provide the cumulative number of outfalls that have been screened for significant non-storm water discharges since the date this Order was adopted through the reporting year.

d. Provide the number of outfalls with confirmed significant non-storm water discharge.

e. Provide the number of outfalls where significant non-storm water discharge was attributed to other NPDES permitted discharges; other authorized non-storm water discharges; or conditionally exempt discharges pursuant to Part IV.B of this Order.

f. Provide the number of outfalls where significant non-storm water discharges were abated as a result of the Discharger's actions.

g. Provide the number of outfalls where non-storm water discharges was monitored.

h. Provide the status of all multi-year efforts, including TMDL implementation, that were not completed in the current year and will continue into the subsequent year(s). Additionally, if any of the requested information cannot be obtained, the Discharger shall provide a discussion of the factor(s) limiting its acquisition and steps that will be taken to improve future data collection efforts.

4. Effectiveness Assessment of Non-Storm Water Control Measures

a. Provide an assessment as to whether receiving water quality within the jurisdiction of the Discharger is impaired, improving, staying the same or declining during dry-weather conditions. The Discharger may compare water quality data from the reporting year to previous years with similar dry-weather flows, conduct trends analysis, draw from regional bioassessment studies, or use other means to develop and support its conclusions.

b. Provide an assessment of the effectiveness of the Discharger control measures in effectively prohibiting non-storm water discharges through the MS4 to the receiving water.

c. Provide the status of all multi-year efforts that were not completed in the current year and will continue into the subsequent year(s).

5. Integrated Monitoring Compliance Report

a. Provide an Integrated Monitoring Report that summarizes all identified exceedances of (1) outfall-based storm water monitoring data, (2) wet weather receiving water monitoring data, (3) dry weather receiving water data, and (4) non-storm water outfall monitoring data against all applicable receiving water limitations, water quality-based effluent limitations, non-storm water action levels, and aquatic toxicity thresholds as defined in Sections XII.F and G of this MRP. All sample results that exceeded one or more applicable thresholds shall be readily identified.

b. If aquatic toxicity was confirmed and a TIE was conducted, identify the toxic chemicals as determined by the TIE. Include all relevant data to allow the Los Angeles Regional Board to review the adequacy and findings of the TIE. This shall include, but not be limited to, the sample(s) date, sample(s) start and end time, sample type(s) (flow-weighted composite, grab, or field measurement), sample location(s) as depicted on the map, the parameters, the analytical results, and the applicable limitation.

c. Provide a description of efforts that were taken to mitigate and/or eliminate all non-storm water discharges that exceeded one or more applicable water quality based effluent limitations, non-storm water action levels, or caused or contributed to aquatic toxicity.

d. Provide a description of efforts that were taken to address storm water discharges that exceeded one or more applicable water quality based effluent limitations, or caused or contributed to aquatic toxicity.

e. Where Receiving Water Limitations were exceeded, provide a description of efforts that were taken to determine whether discharges from the MS4 caused or contributed to the exceedances and all efforts that were taken to control the discharge of pollutants from the MS4 to those receiving waters in response to the exceedances.

6. Adaptive Management Strategies

a. Identify the most effective control measures and describe why the measures were effective and how other control measures will be optimized based on past experiences.

b. Identify the least effective control measures and describe why the measures were deemed ineffective and how the control measures will be modified or terminated.

c. Identify significant changes to control measures during the prior year and the rationale for the changes.

d. Describe all significant changes to control measures anticipated to be made in the next year and the rationale for the changes. Those changes requiring approval of the Regional Board or its Executive Officer shall be clearly identified at the beginning of the Annual Report.

e. Include a detailed description of control measures to be applied to New Development or Re-development projects disturbing more than 50 acres.

f. Provide the status of all multi-year efforts that were not completed in the current year and will continue into the subsequent year(s).

7. Supporting Data and Information

a. All monitoring data and associated meta-data used to prepare the Annual Report shall be summarized in an Excel spreadsheet and sorted by watershed, subwatershed and monitoring station/outfall identifier linked to the subwatershed map. The data summary must include the date, sample type (flow-weighted composite, grab, field measurement), sample start and stop times, parameter, analytical method, value, and units. The date field must be linked to a database summarizing the weather data for the sampling date including 24-hour rainfall, rainfall intensity, and days since the previous rain event.

b. Optional. The Discharger may at its option, provide an additional detailed summary table describing control measures that are not otherwise described in the reporting requirements.

XIX. TMDL REPORTING

The Discharger shall report on the progress of TMDL implementation per the schedules identified below in Sections A – G.

A. Reporting Requirements for Dominguez Channel and Greater Harbors Waters WMA TMDLs

Deliverable	Description	Due Date(s)
Los Angeles Harbor Bacteria TMDL		
Monitoring Results	Monthly data summary reports shall be submitted to the Los Angeles Regional Water Board by the last day of each month for data collected during the previous month.	Monthly on the last day of the month.
Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters Toxic Pollutants TMDL		
Monitoring and Reporting Plan and Quality Assurance Project Plan	The Discharger shall develop Monitoring and Reporting Plans (MRPs) and Quality Assurance Project Plans (QAPPs) for Los Angeles Regional Water Board Executive Officer approval in accordance with the TMDL. The MRPs shall include a requirement that the responsible parties report compliance and non-compliance with water quality-based effluent limitations as part of annual reports submitted to the Los Angeles Regional Water Board. The QAPPs shall include protocols for sample collection, standard analytical procedures, and laboratory certification. All samples shall be collected in accordance with applicable SWAMP protocols.	November 23, 2013, or Submit an IMP or CIMP plan concurrently with the Discharger's draft WMP.
Monitoring Plan	The Discharger shall implement monitoring as outlined in the approved MRP and QAPP.	30 days after MRP and QAPP is approved by Los Angeles Regional Water Board Executive Officer.
Annual Monitoring Reports	The Discharger shall submit annual monitoring reports to the Los Angeles Regional Water Board.	December 15, 2013, and annually thereafter.
Implementation Plan	The Discharger in the Dominguez Channel and Greater Harbors Waters Watershed Management Area shall develop and submit an Implementation Plan.	Submit concurrently with WMP or EWMP. If a WMP or EWMP will not be developed then submit the Implementation Plan 12 months after the effective date of this Order.
Report of Implementation	The Discharger in the Los Angeles River and San Gabriel River Watersheds shall submit a Report of Implementation to the Los Angeles Regional Water Board.	December 15, 2013, and annually thereafter
Implementation Reports	The Discharger shall submit annual implementation reports to the Los Angeles Regional Water Board. Report on implementation progress and demonstrate progress toward meeting the water quality-based effluent limitations.	December 15, 2014, and annually thereafter
Updated Implementation Plan	The Discharger in the Dominguez Channel and Greater Harbors Waters Watershed Management Area shall submit an updated Implementation Plan).	March 23, 2017

B. Reporting Requirements for the Los Angeles River WMA TMDLs

Deliverable	Description	Due Date(s)
Los Angeles River Watershed Trash TMDL		
Reporting	Report compliance with the installation of full capture systems.	December 15, 2013, and annually thereafter.
Los Angeles River Nitrogen Compounds and Related Effects TMDL		
Reporting	Annual reporting of monitoring results to the Los Angeles Regional Water Board.	December 15, 2013, and annually thereafter.
Los Angeles River and Tributaries Metals TMDL		
Annual Monitoring Report	The Discharger shall submit annual monitoring reports as detailed in the approved coordinated monitoring plan to the Los Angeles Regional Water Board.	December 15, 2013, and annually thereafter.
Los Angeles River Watershed Bacteria TMDL		
Bacteria Coordinated Monitoring Plan	The Discharger shall submit a Bacteria Coordinated Monitoring Plan (CMP), which shall be submitted for Los Angeles Regional Water Board Executive Officer approval. The CMP shall detail: the number and location of sites, including at least one monitoring station per each river segment, reach and tributary addressed under this TMDL; measurements and sample collection methods; and monitoring frequencies. The Discharger may also include in the CMP, for Executive Officer consideration, other meteorological stations which may be more representative of the existing hydrology and climate. Each segment, reach, and tributary addressed under this TMDL shall be monitored at least monthly until the subject segment, reach or tributary is at the end of the execution part of its first implementation phase (i.e. 7 years after beginning the segment or tributary-specific phase), to determine compliance with the interim water quality based effluent limitations. Each segment, reach and tributary addressed under this TMDL shall be monitored at least weekly to determine compliance with the instream targets after the first implementation phase. For parties pursuing a Load Reduction Strategy (LRS), intensive outfall monitoring will be conducted before and after implementation of the LRS. Pre-LRS monitoring will be used to estimate the *E. coli* loading from MS4 outfalls to the segment or tributary, and identify the outfalls and types of implementation actions that are expected to be necessary to attain the water quality based limits. Post-LRS monitoring will be used to evaluate compliance with the interim water quality based limits and to plan for additional implementation actions to meet the final water quality based limits, in a second implementation phase, if necessary.	March 23, 2013, or Submit an IMP or CIMP plan concurrently with the Discharger's draft WMP.

	When applicable, outfall monitoring shall including *E. coli* by USEPA- approved methods and flow rate at *all* MS4 outfalls ("snapshots") that are discharging to a segment or tributary or across jurisdictional boundaries during a given monitoring event. For each LRS, at least six (6) snapshots shall be conducted for pre-LRS monitoring, and at least three (3) snapshots shall be conducted for post- LRS monitoring. For MS4s that choose to follow a non-LRS implementation approach, but choose to demonstrate compliance with Equivalent Conditions, at least six (6) snapshots shall be conducted.	
Implement CMP	The Discharger shall begin implementation actions to attain water quality-based effluent limitation, as necessary.	30 days after approval of the CMP
Annual Monitoring Report	Annual reporting of monitoring results to the Los Angeles Regional Water Board.	December 15, 2013, and annually thereafter.
Implementation Plan	The Discharger shall submit an Implementation Plan for wet weather with interim milestones for approval of the Los Angeles Regional Water Board Executive Officer.	March 23, 2022
Long Beach City Beaches and Los Angeles River Estuary Bacteria TMDL		
Compliance Monitoring	To evaluate compliance with numeric targets, monitoring shall take place at existing monitoring sites as well as any new monitoring locations in the ambient water. For beach monitoring locations, daily or systematic weekly sampling in the wave wash at all major drains and creeks, existing monitoring stations at beaches without storm drains, and freshwater outlets is recommended to evaluate compliance. At all beach locations, samples should be taken at ankle depth and on an incoming wave, consistent with Section 7961(b) of title 17 of the California Code of Regulations. At locations where there is a freshwater outlet, during wet weather, samples should be taken as close as possible to the wave wash, and no further away than 10 meters down current of the storm drain or outlet. A robust monitoring program shall be developed for the LAR Estuary. Available data includes bi-weekly monitoring from May through September of 2009, and 2010. Monitoring shall be expanded to include year round monitoring requirements, and at least three monitoring locations within the Estuary. We understand that adequate data to establish a reference estuary approach is currently not available. If in the future, adequate data from reference estuary studies become available, it may be appropriate to consider a reference estuary approach to evaluate compliance with these TMDLs.	Submit an IMP or CIMP plan concurrently with the Discharger's draft WMP. If a WMP or IMP or CIMP will not be developed then submitted the Monitoring Plan 12 months after the effective date of this Order.
Annual Monitoring Report	Annual reporting of monitoring results to the Los Angeles Regional Board.	December 15, 2013, and annually thereafter.

C. Reporting Requirements for San Gabriel River WMA TMDLs

Deliverable	Description	Due Date(s)
	San Gabriel River and Impaired Tributaries Metals and Selenium TMDL	
Coordinated Monitoring Plan	The Discharger shall develop a Coordinated Monitoring Plan, to be approved by the Los Angeles Regional Water Board Executive Officer, which includes both TMDL effectiveness monitoring and ambient monitoring. The ambient monitoring program shall contain monitoring in all reaches and major tributaries of the San Gabriel River, including but not limited to additional dry- and wet-weather monitoring in the San Gabriel River Reaches 4 and 5 and Walnut Creek, additional dry-weather monitoring in San Gabriel River Reach 2, and additional wet-weather monitoring in San Jose Creek, San Gabriel River Reaches 1 and 3, and the Estuary. Sediment samples shall be collected semi-annually in the Estuary and analyzed for sediment toxicity resulting from copper, lead, selenium, and zinc. The TMDL effectiveness monitoring shall demonstrate the effectiveness of the phased implementation schedule for reducing pollutant loads to achieve the dry- and wet-weather water quality based effluent limitations. Monitoring stations specified for the ambient monitoring program may be used for the TMDL effectiveness monitoring. The final dry-weather monitoring stations shall be located in San Jose Creek Reach 1 and the Estuary. The final wet-weather TMDL effectiveness monitoring stations may be located at the existing Los Angeles County Department of Public Works mass emission sites in San Gabriel River Reach 2 and Coyote Creek. The Discharger shall sample once per month, during dry-weather conditions, at each proposed TMDL effectiveness monitoring location. The Discharger shall sample at least 4 wet-weather events where flow meets wet-weather conditions (260 cfs in San Gabriel River Reach 2 and 156 cfs in Coyote Creek) in a given storm season (November to March), unless there are fewer than 4 wet-weather events, at each proposed TMDL effectiveness monitoring location. The Discharger are encouraged to coordinate with the San Gabriel watershed-wide monitoring program to avoid duplication and leverage resources.	Submit an IMP or CIMP plan concurrently with the Discharger's draft WMP, or If a WMP or IMP or CIMP will not be developed then submitted the Coordinated Monitoring Plan 12 months after the effective date of this Order.
Annual Monitoring Report	Annual reporting of monitoring results to the Los Angeles Regional Water Board.	December 15, 2013, and annually thereafter.
Implementation Plan	The Discharger shall submit an Implementation Plan outlining how to achieve compliance with the water quality based effluent limitations, for approval of the Los Angeles Regional Water Board Executive Officer. The Plan shall include implementation methods, an implementation schedule, and proposed milestones.	1 year after the effective date of this Order

D. Reporting Requirements for Los Cerritos Channel WMA TMDLs

Deliverable	Description	Due Date(s)
Los Cerritos Channel Metals TMDL		
Coordinated Monitoring Plan	The Discharger shall develop a Coordinated Monitoring Plan, to be approved by the Los Angeles Regional Water Board Executive Officer, which includes both TMDL effectiveness monitoring and ambient monitoring. The ambient monitoring program shall be developed to track trends in water quality improvements in Los Cerritos Channel; to provide background information on hardness values; and the partitioning of metals between the total recoverable and dissolved fraction. TMDL effectiveness monitoring shall demonstrate the effectiveness of the phased implementation schedule for reducing pollutant loads to achieve the water quality based effluent limitations. Monitoring stations specified for the ambient monitoring program may be used for the TMDL effectiveness monitoring. The Discharger shall sample at least 4 wet-weather events where flow meets wet-weather conditions (>23 cfs in Los Cerritos Channel above the tidal prism) in a given storm season.	Submit an IMP or CIMP plan concurrently with the Discharger's draft WMP, or If a WMP or IMP or CIMP will not be developed then submitted the Coordinated Monitoring Plan 12 months after the effective date of this Order.
Annual Monitoring Report	Annual reporting of monitoring results to the Los Angeles Regional Water Board.	December 15, 2013, and annually thereafter.
Implementation Plan	The Discharger shall submit an Implementation Plan outlining how to achieve compliance with the water quality based effluent limitations, for approval of the Los Angeles Regional Water Board Executive Officer. The Plan shall include implementation methods, an implementation schedule, and proposed milestones.	1 year after the effective date of this Order
Colorado Lagoon OC Pesticides, PCBs, Sediment Toxicity, PAHs, and Metals TMDL		
Monitoring	Water column and sediment samples will be collected at the outlet of the storm drains discharging to the lagoon, while water column, sediment, and fish tissue samples will be collected in the West Arm, Central Arm, North Arm, at the outlet of the lagoon to Marine Stadium during an incoming tide, and at the outfall of Termino Avenue Drain to Marine Stadium as specified in the Colorado Lagoon TMDL Monitoring Plan (CLTMP).	February 1, 2013
Annual Monitoring Reports	The Discharger shall submit annual monitoring reports to the Los Angeles Regional Water Board. All compliance monitoring must be conducted in conjunction with a Los Angeles Regional Water Board approved Quality Assurance Project Plan.	December 15, 2013, and annually thereafter.
Implementation Progress	The Discharger shall submit annual progress reports on the status of implementation actions performed under the TMDL. The plan shall contain mechanisms for demonstration progress toward meeting the water quality based effluent limitations.	December 15, 2013, and annually thereafter.

I, Samuel Unger, Executive Officer, do hereby certify that this Monitoring and Reporting Program is a full, true, and correct copy of the Monitoring and Reporting Plan adopted by the California Regional Water Quality Control Board, Los Angeles Region, on February 6, 2014.

Samuel Unger

Samuel Unger, P.E.
Executive Officer

Date: March 11, 2014